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# CONSOLIDATED TRANSLATION SURVEY.

Number 124.

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Through 30 Apr 68

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CONSOLIDATED TRANSLATION SURVEY

FOR APRIL 1968

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## CONSOLIDATED TRANSLATION SURVEY

### PREFACE

✓ This survey is prepared monthly from lists received through the cooperation of US government agencies and includes universities, research institutions, and commercial translation organizations. It is a compilation of projects completed or started during the preceding month.

Translations are listed by area and subject category. Scientific projects are grouped as a section regardless of geographic area. Title in English, author, foreign language title of source of material, date of publication, and publication identification of the completed project are given when available. Tables of contents of journals translated cover-to-cover are reproduced from the current publications.

Projects in process, i.e., not completed as of the date of this survey, are noted with an asterisk (\*), and when available, a project-control or "in-process" number is noted in parentheses following the title. Certain details may be unavailable on such projects. New projects in process are not listed again until they are completed.

An index to authors of items in this issue is provided at the end of the survey.

Scientific and Technical translations are grouped according to the COSATI subject category list except for military science and ordnance items which are listed under "military" in the appropriate geographic areas.

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(see CFSTI)

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AEC - Atomic Energy Commission (see CFSTI)

AERE Harwell Lib

Atomic Energy Research Establishment  
Harwell, Berkshire

AF

Department of Air Force  
Assistant Chief of Staff, Intelligence  
ATTN: AFCIN-3D  
Washington, D. C.

AGU

American Geophysical Union  
1515 Massachusetts Avenue, NW  
Washington, D. C. 20005

AIP

American Institute of Physics  
335 East 45th Street  
New York, New York 10017

ANL - Argonne National Laboratories, Illinois  
(see AEC)

APL/JHU

The Johns Hopkins University  
Applied Physics Laboratory  
8621 Georgia Avenue  
Silver Spring, Maryland 20910

BISI

British Iron and Steel Industry Translation Service  
The Iron and Steel Institute  
4 Grosvenor Gardens  
London, S. W. 1, England

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Consultants Bureau Enterprises, Incorporated  
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New York, New York 10011

CPSTI

Clearinghouse for Federal Scientific and  
Technical Information (Formerly Office of  
Technical Services)  
Port Royal and Braddock Roads  
Springfield, Virginia 22151

CTT

Columbia Technical Translations  
5 Vermont Avenue  
White Plains, New York 10600

DIA

Defense Intelligence Agency  
Washington, D. C. 20301

FTD - Foreign Technology Division (see AF)

HB

Henry Bratcher Technical Translations  
P.O. Box 157  
Altadena, California 91001

HEW - (see NIH)

IEEE

Institute of Electrical and Electronics Engineers  
275 Madison Avenue  
New York, New York 10016

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NASA

National Aeronautics and Space Administration  
1512 H Street, NW  
Washington, D. C. 20546

Natl Bu Stand

National Bureau of Standards  
ATTN: Dr Henry Birnbaum  
Room 314, South Building  
Washington, D. C.

NIC

Naval Intelligence Command  
Naval Intelligence Command Headquarters  
NIC-15  
Washington, D. C. 20350

NIH

Circulation Unit  
Readers Services Section  
Library Branch, DRS  
National Institute of Health  
Building 10, Room 5N118  
Bethesda, Maryland 20014

NMS

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National Naval Medical Center  
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**NSTIC**

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**OSA**

Optical Society of America, Incorporated  
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National Aeronautics and Space Administration  
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**UCRL**

University of California  
Lawrence Radiation Laboratory  
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(see AEC)

USSR

Economic

Development of Railway Junctions and Stations in the USSR, by G. A. Litvinovskiy, 7 pp.  
RUSSIAN, per, July 1967, pp 3-5.  
DIA L: 257-68

Audits as a Source of Economic Analysis, by O. Knitsikevich and V. Murashko, 9 pp.  
RUSSIAN, per, Bukhgalterskiy Uchet, No. 11, Moscow, Nov 67, pp. 32-38.  
JPRS 44,405

New Bookkeeping Regulations Announced, 22 pp.  
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JPRS 44,405

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JPRS 44,498

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RUSSIAN, per, Bukhgalterskiy Uchet, Moscow, No. 1, Jan 68, pp. 3-8.  
JPRS 44,678

Role of Credit in Soviet Development Discussed, 6 pp.  
RUSSIAN, per, Den'gi i Kredit, No. 11, Moscow, 1967, pp. 3-6.  
JPRS 44,405

Credit System Aids in Agricultural Specialization, by L. Yerminev, 6 pp.  
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JPRS 44,405

USSR  
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Differences of Balance Sheet and Gross Profit Discussed, by V. Ionov, 9 pp.  
RUSSIAN, per, Den'gi i Kredit, No. 11, Moscow, 1967, pp. 30-36.  
JPRS 44,405

Large-Scale Banking and Credit Activity Expanded, by V. Vorob'ev, 20 pp.  
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Planning and Controlling Monetary Circulation in Rural Areas, by I. Parfenov, 11 pp.  
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JPRS 44,684

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JPRS 44,511

Role of Credit in the Development of Domestic Services, by A. Kanayev and P. Odintsova, 5 pp.  
RUSSIAN, per, Den'gi i Kredit, No. 12, Moscow, Dec 67, pp. 55-57.  
JPRS 44,633

Favorable Effect of Economic Reform on Motor-Transport Enterprises, by N. Korolev, 6 pp.  
RUSSIAN, newspaper, Ekonomicheskaya Gazeta, No. 2, Moscow, Jan 68, p. 21.  
JPRS 44,535

Allowances and the Material Incentive Fund, by Yu. Grigor'yev, 3 pp.  
RUSSIAN, newspaper, Ekonomicheskaya Gazeta, No. 2, Moscow, Jan 68, p. 31.  
JPRS 44,445

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RUSSIAN, newspaper, Ekonomicheskaya Gazeta, Moscow, No. 3, Jan 68, pp. 17-19.  
JPRS 44,498

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Economic (Contd)

Machine Building Industry in Irkutskaya Oblast, by S. Karnaukhov, 5 pp.  
RUSSIAN, weekly, Ekonomicheskaya Gazeta, No. 4, Moscow, Jan 68, p. 9.  
JPRS 44,614

The Cost of Drilling for Oil, by S. Polyakov and R. Matyushin, 5 pp.  
RUSSIAN, newspaper, Ekonomicheskaya Gazeta, No. 4, Moscow, Jan 68, p. 38.  
JPRS 44,528

Dispute Over Industrial Pollution in Chelyabinsk, by V. Varavka, 6 pp.  
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JPRS 44,614

Information for a Member of the Housing Construction Cooperative, by D. Pudikov, 5 pp.  
RUSSIAN, weekly, Ekonomicheskaya Gazeta, Moscow, No. 6, Feb 68, p. 28.  
JPRS 44,681

Social Consumption Funds and the National Standard of Living, by D. Stadukhin and M. Khaverson, 8 pp.  
RUSSIAN, per, Ekonomicheskiye Nauki, Moscow, No. 12, Dec 67, pp. 28-32.  
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Tendencies of the Development of the Social Division of Labor, by S. Breyev, 9 pp.  
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Influence of New Equipment on Ukrainian Iron Costs, by V. Kovalenko, 13 pp.  
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JPRS 44,631

USSR  
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RUSSIAN, journal, Ekonomika Sovetskoy Ukrainy, No. 10, Kiev, Oct 67, pp. 50-54.  
JPRS 44,632

The Development of the Productive Forces of the Ukraine Under Soviet Power, by M. Palamarchuk, 12 pp.  
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A Network of Good Motor Highways for the Republic, by P. Sel'skiy & L. Goncharov, 8 pp.  
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DIA L. 369-68

The Nonferrous Magnitogorsk of Kazakhstan, RUSSIAN, per, Ekonomika Stroitel'stva, No. 7, 1967, pp 13-18.  
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pp. 19-22.  
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stva, Moscow, No. 1, Jan 68,  
pp. 45-49.  
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Resulting from Assistance by the  
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stva, Moscow, No. 1, 1968, pp. 65-67.  
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24 pp.  
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by A. Birkin, 8 pp.  
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JPRS 44,614

The Development of Housing Construction in Moscow (1931 to 1967), by A.V. Ryabinin, 11 pp.  
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American Journal Misrepresents Soviet Unemployment, by Ye. Borodin, 7 pp.  
RUSSIAN, newspaper, Izvestiya, Moscow, 4 Feb 68, pp. 2-3.  
JPRS 44,634

Economic Reform and its Problems, by K. Markabayev, 6 pp.  
RUSSIAN, newspaper, Kazakhstanskaya Pravda, Alma-Ata, 23 Jan 68, p. 2.  
JPRS 44,678

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The Oil Refining and Petrochemical Industry, in 1968-1970, by D.I. Notkin, 7 pp.  
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JPRS 44,635

Classification of Fixed Productive Capital in the Oil Refining Industry, by O.D. Lukshina, 6 pp.  
RUSSIAN, journal, Khimiya i Tekhnologiya Topliv i Masel, No. 12, Moscow, Dec 1967, pp. 23-25.  
JPRS 44,451

The Reserves of Socialist Industry Are at the Service of the Soviet People, by M. Solomentsev, 21 pp.  
RUSSIAN, journal, Kommunist, No. 18, Moscow, Dec 67, pp. 15-32.  
JPRS 44,642

Material-Technical Supply Problems Under the Economic Reform, by P. Kaymakov, 11 pp.  
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JPRS 44,402

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JPRS 44,678

USSR  
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Improvements in Capital Goods Supply Recommended, by Yu. Koldomasov, 12 pp.  
RUSSIAN, per, Material'no-tekhnicheskoye Snabzheniye, No. 12, Moscow, Dec 67, pp. 5-11.  
JPRS 44,587

Material Balances Proposed by Supply Organizations, by P. Furduev, et al, 11 pp.  
RUSSIAN, per, Material'no-tekhnicheskoye Snabzheniye, No. 12, Moscow, Dec 67, pp. 25-31.  
JPRS 44,587

Leninist Ideas and Formation of Socialist Community, by N. Faddeyev, 17 pp.  
RUSSIAN, per, Mirovaya Ekonomika i Mezhdunarodnyye Otnosheniya, No. 12, Moscow, 1967, pp. 3-13.  
JPRS 44,492

International Growth Rate Differences Discussed, by M. Usiyevich and K. Mikul'skiy, 20 pp.  
RUSSIAN, per, Mirovaya Ekonomika i Mezhdunarodnyye Otnosheniya, No. 12, Moscow, 1967, pp. 79-88.  
JPRS 44,492

Problems of the Dairy Industry, 1968, 7 pp.  
RUSSIAN, per, Molochnaya Promyshlennost', No. 1, Moscow, Jan 68, pp. 1-3.  
JPRS 44,683

The Maritime Fleet of Soviet Estonia is Growing and Developing, 15 pp.  
RUSSIAN, per, Morskoy Flot, Vol 7, Jul 1967, pp 9-10; 14-15; 40.  
DIA LN 214-68

Maritime Ports and Shipyards, by A. Polikarpov.  
RUSSIAN, per, Morski Flot, Vol 10, Oct 1967, pp 8-9.  
DIA LN 464-68

USSR  
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Yesterday, Today & Tomorrow in the Port of Leningrad, by I. Man, 24 pp.  
RUSSIAN, per, Morski Flot, Vol 10, Oct 1967, p 38.  
DIA LN 464-68

1968 Plans for Kazakhstan Economy, by K. Katabayev, 15 pp.  
RUSSIAN, per, Narodnoye Khozyaystvo Kazakhstana, No. 12, Alma-Ata, Dec 67, pp. 10-21.  
JPRS 44,608

Theoretical and Practical Aspects of Interbranch Balance, by A. Dorovskikh, 14 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, No. 12, Moscow, Dec 67, pp. 35-44.  
JPRS 44,454

Reform Boosts Industry, 10 pp.  
RUSSIAN, per, Planovoye Khozyaystvo No. 1, Moscow, 1968, pp. 3-9.  
JPRS 44,543

Effect of Interrepublic Import-Export Ties, by M. Belov, 14 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, No. 1, Moscow, 1968, pp. 29-38.  
JPRS 44,543

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RUSSIAN, per, Planovoye Khozyaystvo, Moscow, No. 1, Jan 68, pp. 80-84.  
JPRS 44,538

Normative Method for Planning Labor Indices, by V. Panfilov, 7 pp.  
RUSSIAN, journal, Planovoye Khozyaystvo, Moscow, No. 1, Jan 68, pp. 84-88.  
JPRS 44,419

Certain Problems of Domestic Services Planning, by S. Podol'skiy and S. Sazonova, 6 pp.  
RUSSIAN, per, Planovoye Khozyaystvo, No. 1, Moscow, Jan 68, pp. 91-94.  
JPRS 44,633

USSR  
Economic (Contd)

Work-Study Program Criticism Discussed, by A. Darinskiy, 5 pp.  
RUSSIAN, newspaper, Pravda,  
Moscow, 6 Dec 67, p 3.  
JPRS 44,692

Trade Relations Called for Between Latin America and USSR, by A. Mazin, 5 pp.  
RUSSIAN, newspaper, Pravda, Moscow, 15 Dec 67, p. 2.  
JERS 44,455

Stimulating Economic Growth, by O. Yusupov, 5 pp.  
RUSSIAN, newspaper, Pravda Vostoka,  
Tashkent, 7 Jan 68, p.2.  
JERS 44,419

Complete Cost Accounting for Plants, by A. Birman, 5 pp.  
RUSSIAN, newspaper, Pravda, Moscow, 12 Jan 68, p. 2.  
JPRS 44,608

The Basis of Economic Power.  
RUSSIAN, per, Promyshlennoye Stroylstvo, No 3, May-June 1967, pp 1-4.  
DIA LN 233-68

Technical Progress in the Construction of the Enterprises of Heavy Industry, 20 pp.  
RUSSIAN, per, Promyshlennoye Stroylstvo, No 3, May-June 1967, pp 5-8.  
DIA LN 233-68

Volga-Baltic Waterway Important to the Economy, by V. Kokushkim, 5 pp.  
RUSSIAN, per, Rechnoy Transport, Moscow, No. 13, Dec 67, pp. 10-11.  
JPRS 44,588

The Development of Kolkhoz Fisheries over the Years of Soviet Power, by Z. N. Sventov.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 10, 1967, pp 12-15.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
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USSR  
Economic (Contd)

Fishery Science and Technical Progress (Fishery Research over the 50 Years of Soviet Power).. by V. P. Zaitsev.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 10, 1967, pp 16-20.  
\*Dept of Interior  
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Soviet Pond Fisheries, by K. E. Babaian.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 10, 1967, pp 23-26.  
\*Dept of Interior  
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New Methods and Equipment for Catching Fish and Other Sea Life, by I. V. Mikhonov.  
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Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

The first Attempt at Using a Bottom Long-Line off the Northwest Coast of Africa, by V. A. Tkachenko and A. K. Sigayev.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 10, 1967, pp 44-45.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

For a Creative Approach to Trawling Gear and Equipment, by V. V. Karalin.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 10, 1967, pp 46-68.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Mechanization and Automation of Labor-Intensive Processes in Soviet Fish-Processing Industry, by A. V. Terent'ev.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 10, 1967, pp 57-59.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

USSR  
Economic (Contd)

Packaging Fish Products -- on a Level of the Present Requirements, by V. I. Shkul'tin.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 10, 1967, pp 60-62.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

The Experience of Operating Under the New Conditions, by B. N. Nikitin.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 10, 1967, pp 77-78.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

On the Basic Directions in the Technical and Economic Bases for the Long-Range Development of the Fleet, by V. S. Ivanov.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 10, 1967, pp 79-82.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Problems of the Economics of Fixed Capital for the Fishing Industry Fleet, by N. P. Sysoev.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 10, 1967, pp 83-84.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

The Practices of Training and Raising the Skills of the Cadres, by I. S. Baspalov.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 10, 1967, pp 85-87.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

On the Development of Inland Fisheries of the Russian Federation, by N. A. Vaniaev.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, pp 7-10.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

USSR  
Economic (Contd)

Organizing Work for Labor Safety, by I. A. Mikhailov.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, pp 46-47.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

A Method for Using Sea Water in Producing Industrial Fat, by A. K. Stechkin.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, p 75.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Factors Influencing the Annual Productivity of a Fishing Vessel, by A. I. Bakov.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, pp 76-78.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

The Influence of the Delivery Speed for Fish Products on Their Quality, by V. S. Egorov and N. I. Savin.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, pp 79-81.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Our Experience of Three-Shift Work on a Vessel, by V. Cheshikhin.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, pp 81-83.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Determining the Economic Effectiveness of Reducing the Material Expenditure Norms, by N. Kotel'nikova  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, pp 84-85.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

USSR  
Economic (Contd)

The First Session on Achieving an Agreement on Collaboration in the Area of Marine Fisheries Between the U.S.S.R. and the Republic of Senegal, by B. Maksimov  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, pp 89-90.

\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Soviet Fisheries Minister Reports on 1968 Plans, by A.A. Ishkov, 9 pp.  
RUSSIAN, per, Rybnoye Khozyaystvo, No. 1, Moscow, Jan 68, pp. 2-6.  
JPRS 44,611

Introduction of Economic Reform in Sugar Beet Industry, by G.I. Kleymen, 8 pp.  
RUSSIAN, per, Sakharnaya Promyshlennost', No. 1, Moscow, Jan 68, pp. 1-6.  
JPRS 44,683

Lenin's Social Security Program in Action, by M. Lantsev, 11 pp.  
RUSSIAN, per, Sotsialisticheskii Trud, No. 12, Moscow, Dec 67, pp. 11-19  
JPRS 44,500

Bonuses Based on Labor, by S. Sergeyenko, 7 pp.  
RUSSIAN, per, Sotsialisticheskii Trud, No. 12, Moscow, Dec 67, pp. 41-45.  
JPRS 44,500

Questions Asked in Connection With the New System of Planning and Economic Incentive, 6 pp.  
RUSSIAN, per, Sotsialisticheskii Trud, No. 12, Moscow, Dec 67, pp. 46-50.  
JPRS 44,500

Conditions for Granting Credit to Estonian Production Establishments, by T. Kushir, 5 pp.  
RUSSIAN, newspaper, Sovetskaya Estoniya, Tallin, 4 Jan 68, p. 2.  
JPRS 44,402

USSR  
Economic (Contd)

1968 Plans for Developing the Lithuanian Economy, by Aleksandras Drobnis, 6 pp.  
RUSSIAN, newspaper, Sovetskaya Litva, Vil'nyus, 31 Dec 67, p. 1.  
JPRS 44,402

Need for Fuller Satisfaction of Consumer Demand, by R. Lokshin, 8 pp.  
RUSSIAN, per, Sovetskaya Potrebitel'skaya Kooperatsiya, No. 1, Moscow, Jan 68, pp. 25-29.  
JPRS 44,633

The Economic Reform and Commercial Flexibility, 11 pp.  
RUSSIAN, per, Sovetskaya Torgovlya, No. 1, Moscow, Jan 68, pp. 2-7.  
JPRS 44,512

Granting of State Certificates of Commodity Quality, by M. Laptin and B. Rabinovich, 7 pp.  
RUSSIAN, per, Sovetskaya Torgovlya, No. 1, Moscow, Jan 68, pp. 8-10.  
JPRS 44,620

Proposed Improvements in Manufacture and Sale of Musical Instruments, by A. Grinberg, 6 pp.  
RUSSIAN, per, Sovetskaya Torgovlya, No. 1, Moscow, Jan 68, pp. 16-19.  
JPRS 44,512

Material Incentives Experiment in Trade Evaluated, by Yu. Zlokazov and A. Il'in, 6 pp.  
RUSSIAN, per, Sovetskaya Torgovlya, No. 1, Moscow, Jan 68, pp. 20-22.  
JPRS 44,512

The Hundred-Ton Floating Crane "CHERNOMORETS" ("Black Sea"), 14 pp.  
RUSSIAN, per, Sudostroyeniye, Vol 9, Sept 1967, pp 1-6.  
DIA LN 371-68

CEMA Textile Industry Develops Specialization, by N.N. Tarasov, 11 pp.  
RUSSIAN, per, Tekstil'naya Promyshlennost', No. 12, Moscow, Dec 67, pp. 3-8.  
JPRS 44,492

USSR  
Economic (Contd)

Labor Productivity Rises in CEMA Textile Industry, by V.I. Denisov, 7 pp.  
RUSSIAN, per, Tekstil'naya Promyshlennost', No. 12, Moscow, Dec 67, pp. 8-11.  
JPRS 44,492

Professional Requirements of Trade Workers, by A. Fefilov, 5 pp.  
RUSSIAN, newspaper, Trud, Moscow, 28 Jan 68, p. 1.  
JPRS 44,419

Plans for the Development of the Tourism Industry in Siberia and the Far East, by P. Oldak, 5 pp.  
RUSSIAN, newspaper, Trud, Moscow, 31 Jan 68, p. 3.  
JPRS 44,547

Utilization of Fixed Production Assets at the Kuzbass Mines and Means of Its Improvement, by A.I. Il'ichev, 7 pp.  
RUSSIAN, per, Ugol', No. 1, Moscow, Jan 68, pp. 22-23.  
JPRS 44,647

Coal Industry Report for Jan-Sept 1967, 12 pp.  
RUSSIAN, per, Ugol', No. 1, Moscow, Jan 68, pp. 70-73.  
JPRS 44,647

Remuneration for Labor According to Final Production Results in Sovkhozes, by P.N. Rukosuyev, 10 pp.  
RUSSIAN, journal, Vestnik Moskovskogo Universiteta Seriya VII Ekonomika, No. 1, Moscow, Jan-Feb 68, pp. 57-64.  
JPRS 44,538

Use of Labor Resources on the Private Subsidiary Plot, by T.A. Khadonov, 10 pp.  
RUSSIAN, per, Vestnik Moskovskogo Universiteta, Seriya VII -- Ekonomika, No. 1, Moscow, Jan-Feb 68, pp. 65-72.  
JPRS 44,630

USSR  
Economic (Contd)

Mechanization of Accounting Procedures Proposed, by V. Liberman and V. Podol'skiy, 14 pp.  
RUSSIAN, per, Vestnik Statistiki, No. 12, Moscow, Dec 67, pp. 47-55.  
JPRS 44,498

Soviet State Statistics in 1968, 25 pp.  
RUSSIAN, per, Vestnik Statistiki, Moscow, No. 1, Jan 68, pp. 3-21.  
JPRS 44,678

New Classification of Branches of National Economy and Industry, by V. Gur'ye, 14 pp.  
RUSSIAN, per, Vestnik Statistiki, Moscow, No. 1, Jan 68, pp. 22-31.  
JPRS 44,547

Questions of the Economic Effectiveness in Concentrating Industrial Production, by I. Pogosov, 18 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No. 1, Moscow, Jan 68, pp. 12-23.  
JPRS 44,587

Use of Rural Labor, by V. Churskov, 14 pp.  
RUSSIAN, monthly, Voprosy Ekonomiki, Moscow, No. 1, Jan 68, pp. 40-49.  
JPRS 44,500

Criterion of Economic Optimum and Optimization of National Economic Plans, by Ya. Kronrod, 20 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No. 1, Moscow, Jan 68, pp. 50-62.  
JPRS 44,587

Interbranch Balance Used in Analysis and Planning, by E. Baranov and S. Shatalin, 17 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No. 1, Moscow, Jan 68, pp. 93-103.  
JPRS 44,587

Reproduction Systems and the Interbranch Balance, by A. Kats, 20 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No. 1, Moscow, Jan 68, pp. 104-116.  
JPRS 44,587

USSR  
Economic (Contd)

Determination of Work-Time Expenditures and Number of Kolkhoz Workers, by S. Khanukayev, 6 pp.  
RUSSIAN, per, Voprosy Ekonomiki, No. 1, Moscow, Jan 68, pp. 138-141.  
JPRS 44,679

Economic Reform in the Azerbaydzhan SSR, 5 pp.  
RUSSIAN, newspaper, Vyshka, Baku, 13 Jan 68, p. 2.  
JPRS 44,608

Political

Growth of Soviet-Mongolian Cooperation, by B.A. Asonov, 12 pp.  
RUSSIAN, per, Ediyn Dzasgiyn Asuudal, Ulan Bator, No. 5, Oct 67, pp. 26-37.  
JPRS 44,607

The Leninist Principle of the Unity of Theory and Practice in Communist Construction, by G. Glezerman, 15 pp.  
RUSSIAN, journal, Kommunist, No. 18, Moscow, Dec 67, pp. 46-57.  
JPRS 44,642

The Shield and the Sword of the Socialist Revolution, by G. Vlasenko, 13 pp.  
RUSSIAN, journal, Kommunist, No. 18, Moscow, Dec 67, pp. 68-78.  
JPRS 44,642

The Workers' Movement and the Struggle for the Consolidation of the World Anti-Imperialist Front, by T. Timofeyev, 17 pp.  
RUSSIAN, per, Kommunist, No 18, Dec 67, pp 79-80.  
JPRS 44,642

The Epoch of Socialism and the National Liberation of Peoples, by K. Brutents, 15 pp.  
RUSSIAN, journal, Kommunist, No. 18, Moscow, Dec 67, pp. 91-102.  
JPRS 44,642

USSR  
Political (Contd)

Two Civilizations, by Yu Zhukov, 15 pp.  
RUSSIAN, journal, Kommunist, No. 18, Moscow, Dec 67, pp. 103-113.  
JPRS 44,642

Soviet Commentator Analyzes Contemporary National Liberation Movement, by R.A. Ul'yanovskiy, 26 pp.  
RUSSIAN, per, Narody Azii i Afriki, No. 5, Moscow, 1967, pp. 21-36.  
JPRS 44,521

Mighty Wings of the Fatherland.  
RUSSIAN, per, Ognek, No 29, Jul 1967, pp 2-3.  
DIA LN 199-68

Science of Domestic Services, by M. Grigor'yan, 10 pp.  
RUSSIAN, journal, Politicheskoye Samooobrazovanie, Moscow, No. 12, Dec 67, pp. 112-117.  
JPRS 44,633

The Resolutions of the September Plenum CC CPSU Must be Implemented, by Ye. Vasil'yev, 10 pp.  
RUSSIAN, per, Sotsialisticheskii Trud, No. 12, Moscow, Dec 67, pp. 3-10.  
JPRS 44,500

Rewards Based on Annual Results: Experience, Conclusions and Suggestion by G. Mal'nikova, 10 pp.  
RUSSIAN, per, Sotsialisticheskii Trud, No. 12, Moscow, Dec 67, pp. 20-27.  
JPRS 44,500

Certain Questions Concerning the Strength of Public Order, by G. Ish and S. Dabsahuu, 8 pp.  
MONGOLIAN, per, Ardyn Tor, Ulan Bator, No. 6, 1967, pp. 19-25.  
JPRS 44,607

Old Bolsheviks Denounce Historical Revisionism in USSR, 13 pp.  
ITALIAN, per, Bandiera Rossa, Rome, 15 Dec 67, pp. 3,4.  
JPRS 44,638

USSR

Military

Anti-Tank Warfare or Tank Warfare,  
by G. F. Biryukov and G. V. Mel'nikov,  
RUSSIAN, bk, Bor'ba s Tankami, 1967  
\*ACSI J-4398  
ID 22040069-68

Law and Duty, by Col.Gen. S. Shtemenko,  
13 pp.  
RUSSIAN, journal, Kommunist, No. 18,  
Moscow, Dec 67, pp. 58-67.  
JPRS 44,642

On Improving the Efficiency of Ideological  
Work, by M. Kalashnik, 22 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil,  
No. 1, Moscow, Jan 68, pp. 3-14.  
JPRS 44,474

World War and Human Resources, by P. Sokolov,  
16 pp.  
RUSSIAN, per, Kommunist Vooruzhennykh Sil,  
No. 1, Moscow, Jan 68, pp. 65-72.  
JPRS 44,474

The Development of the Armed Forces Under  
new Conditions, by N. M. Kiryayev, et al,  
22 pp.  
RUSSIAN, bk, KPSS i Stroitel'stvo Sovetskikh  
Vooruzhennykh Sil, Moscow, 1967, pp 368-418.  
Chapter 2.  
JPRS 44,703

Revolution in Military Science, 24 pp.  
RUSSIAN, book, KPSS i Stroitel'stvo  
Sovetskikh Vooruzhennykh Sil, Moscow,  
1967, pp. 368-418. Chapter III  
JPRS 44,703

The Elaboration of the Soviet Military  
Doctrine by the Communist Party, by  
N.M. Kiryayev, et al., 13 pp.  
RUSSIAN, book, KPSS i Stroitel'stvo  
Sovetskikh Vooruzhennykh Sil, Moscow,  
1967, pp. 368-418. Chapter IV  
JPRS 44,703

USSR  
Military Contd)

Submarine Travels Great Distance in Training,  
by B. Volokhov, 5 pp.  
RUSSIAN, newspaper, Kovetskii Voin, Moscow,  
No. 24, Dec 67, pp. 18-19.  
JPRS 44,474

Nuclear Weapons and Defense Against Them, by  
V. Mikhaylov and I. Naumenko, 38 pp.  
RUSSIAN, per, Nauka i Zhizn', No 9, 1967, pp 64-  
67. P911046668  
ABC-UCRL-Tr-10197

The Problems of War and Peace.  
RUSSIAN, bk, Problemy Voeny i Mira, 1967, 461 pp.  
\*FTD-MT-24-59-68

Engineer of the Flagman's Regiment, by N. Denisov,  
7 pp.  
RUSSIAN, per, Tekhnika i Vooruzheniye, Aug 1967,  
pp 4-5.  
DIA LN 420-68

Nuclear Weapons and the Development of Tactics,  
by P. M. Petrus', P. V. Shumanskiy, 148 pp.  
RUSSIAN, bk, Yadernoye Oruzhiye i Razvitiye  
Taktiki, 1967, pp 3-239.  
ACSI J-3903  
ID 2204058767

Geographic

In the Region of the Chukot Yarangas, by  
Ye Bursan.  
RUSSIAN, per, Morskii Flot, Vol 10, Oct 1967,  
pp 15-17.  
DIA LN 464-68

Sociological

On Improving the Training of Scientific  
and Scientific-Pedagogical Cadres,  
7 pp.  
RUSSIAN, journal, Kommunist, No. 18,  
Moscow, Dec 67, pp. 4-8.  
JPRS 44,642



USSR  
Sociological (Contd)

Urgent Problems in Psychological Science, by A. Leont'yev, 18 pp.  
RUSSIAN, per, Kommunist, Moscow, No. 2, Jan 68, pp. 55-69.  
JPRS 44,518

Expanded Public Catering Network Urged, 6 pp.  
RUSSIAN, per, Obshchestvennoye Pitaniye, No. 1, Moscow, 1968, pp. 2-4.  
JPRS 44,677

Sociology and Fishermen, by V. Andreev, A. Bulygin.  
RUSSIAN, per, Rybnaya Khozyaystvo, Vol 43, No 11, 1967, pp 36.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Higher Pedagogical Education, by N.V. Aleksandrov, 13 pp.  
RUSSIAN, per, Sovetskaya Pedagogika, No. 11, Moscow, Nov 67, pp. 61-70.  
JPRS 44,548

The Soviet Psychology of Education, by L.I. Boshovich and L.S. Slavina, 17 pp.  
RUSSIAN, per, Sovetskaya Pedagogika, No. 12, Moscow, Dec 67, pp. 3-17.  
JPRS 44,548

Court Official Urges Labor Law Enforcement, by V.V. Kulikov, 6 pp.  
RUSSIAN, newspaper, Trud, Moscow, 21 Jan 68, p.2.  
JPRS 44,679

Report on Lumbaba Friendship University, by S. Lebovich, 13 pp.  
RUSSIAN, per, Vestnik Vysshay Shkoly, No. 12, Moscow, Dec 67, pp. 21-25.  
JPRS 44,692

USSR  
Sociological (Contd)

Development of Social Sciences and the Rise of Their Role in Communist Construction, by S.P. Trapeznikov, 37 pp.  
RUSSIAN, journal, Voprosy Filosofii, No. 11, Moscow, 1967, pp. 3-27.  
JPRS 44,593

Modelling as An Object of Philosophical Research, A. Rakitov, 7 pp.  
RUSSIAN, journal, Voprosy Filosofii, No. 11, Moscow, 1967, pp. 153-156.  
JPRS 44,596

Eastern Europe

Economic

On the Realization of the Plan and State Budget for 1967 and the Tasks of the Draft Plan and State Budget for 1968, by Haki Toska, 5 pp.  
ALBANIAN, daily, Zeri i Popullit, Tirana, 22 Dec 67, pp. 1-3.  
JPRS 44,497

Changes in Pension Legislation, 24 pp.  
BULGARIAN, per, Dushaven Vestnik, Sofia, No. 102, 29 Dec 67, pp. 1-6.  
JPRS 44,494

Bulgarian Cooperation With the Socialist Countries, by Tsvetan Petrov, 5 pp.  
BULGARIAN, per, Ekonomicheski Zhivot, No. 3(73), Sofia, 18 Jan 68, pp. 1, 2 and 3.  
JPRS 44,448

The New System of Management of the National Economy-- A Contemporary Form of Economic Organization of Socialized Production, by Zhak Arapo, 13 pp.  
BULGARIAN, per, Finans i Kredit, No. 10, Sofia, Dec 67, pp. 33-44.  
JPRS 44,482

Eastern Europe  
Economic (Contd)

Basic Directions in the Specialization of the Machine Building Industry, by Anna Tavetkova, 7 pp.  
BULGARIAN, per, Geografiya, Vol. 17, No. 9, Sofia, Dec 67, pp. 1-4.  
JPRS 44,624

The Development of Bulgaria in 1968, by Apostol Pashev, 8 pp.  
BULGARIAN, per, Ikonicheski Zhivot, Sofia, No. 1, 4 Jan 68, pp. 1,3.  
JPRS 44,505

Recent Changes in the Law Governing Pensions, by A. Aleksandrov, 6 pp.  
BULGARIAN, per, Ikonicheski Zhivot, Sofia, No. 1, 4 Jan 68, p. 2.  
JPRS 44,494

Intercooperative Specialization in Animal Husbandry, by Yordan Kostadinov, 5 pp.  
BULGARIAN, per, Ikonicheski Zhivot, Sofia, No. 1, 4 Jan 68, pp. 8,9.  
JPRS 44,530

Wages and Material Incentives in Cooperative Labor Farms, by Atanas Ganev, 18 pp.  
BULGARIAN, per, Ikonicheski Zhivot, No. 7, Sofia, 15 Feb 68, pp. 2-16.  
JPRS 44,652

Scientific Management of the Economy on the Ogrug Level, by Marko Markov, 13 pp.  
BULGARIAN, per, Partiya Zhivot, Sofia, No. 18, Dec 47, pp. 23-34.  
JPRS 44,423

Internal Profit and Loss Accounting in the Cooperative Labor Farms, by Khristo Strugarov and Boris Savov, 11 pp.  
BULGARIAN, per, Partiya Zhivot, No.2, Sofia, Feb 68, pp. 49-56.  
JPRS 44,662

Eastern Europe  
Economic (Contd)

Gasoline Stations, 12 pp.  
BULGARIAN, per, Tekhnika, 1963, pp 4-6; 24; 26; 28-32; 34; 35.  
DIA LN 343-68

The State Budget 1967 and 1968, by Leopold Ler, 7 pp.  
CZECH, per, Hospodarske Noviny, No.51-52, Prague, 21 Dec 67, p. 7.  
JPRS 44,482

Financial Incentives for Management Personnel, by Genek Lorenc and Dr. Josef Sliz, 8 pp.  
CZECH, per, Hospodarske Noviny, No. 51-52, Prague, 21 Dec 67, pp. 8-9.  
JPRS 44,482

Law on State Budget for 1968 and Other Financial Measures, 5 pp.  
CZECH, journal, Sbirka Zakonu, Part 3, Item 8, 12 Jan 68, pp. 13-16.  
JPRS 44,423

The CP Tank Truck.  
CZECH, per, Technika Prace, No 11, 1967, 4 pp.  
\*ACSI J-4600  
ID 2204013368

Design of the T 138 C-12 Tank Truck-a Guarantee of Dependability and Economy of Transportation.  
CZECH, per, Technika Prace, No 11, 1967, 3 pp.  
\*ACSI J-4600  
ID 2204013368

Travel Advantages of the Czech Railroad Workers  
4 pp.  
CZECH, per, Zelenion, No 2, 1967, p 28.  
DIA LN 50-68

600 Millions to Modernize the Railroads.  
CZECH, per, Zelenion, Apr 1967, pp 1-4.  
DIA LN 275-68

Suits Made From PVC, for the Protection of Persons Against Radioactive Contamination, by F. Suter, 16 pp.  
GERMAN, per, Monatsschrift, Vol 13, No 4/5, 1967, pp 180-185.  
FBI 100-468-V  
ABC-12-C-2398

Eastern Europe  
Economic (Contd)

Railway Express Connection Between Halle West and Buna/Leuna, 37 pp.  
GERMAN, per, Deutsche Eisenbahn Technik, June 1967, pp 271-274; 275-279; 306-311.  
DIA LN 108-68

Text of Finance Minister's 1968 Budget Speech, by Siegfried Boehm, 11 pp.  
GERMAN, per, Deutsche Finanzwirtschaft, No. 1, Jan 68, pp. 7-13.  
JPRS 44,542

Rationalization and Technical Revolution in the Textile Industry, by Hans Wittik, 19 pp.  
GERMAN, per, Deutsche Textiltechnik, No. 1/2, Jan-Feb 68, pp. 10-16.  
JPRS 44,572

First Implementing Regulation to the 1968 Budget Law, 5 pp.  
GERMAN, official gazette, Gesetzblatt der Deutschen Demokratischen Republik, Part II, No. 14, E. Berlin, 5 Feb 68, pp. 61-63.  
JPRS 44,646

Housing Control Decree Issued, 21 pp.  
GERMAN, gazette, Gesetzblatt der Deutschen Demokratischen Republik, Part II, No. 105, 15 Nov 67, pp. 733-739.  
JPRS 44,479

Agreement on Unilateral Customs Inspection of Foreign Trade Commodities, 7 pp.  
GERMAN, gazette, Gesetzblatt der Deutschen Demokratischen Republik, Part II, No. 121, 22 Dec 67, pp. 858-860.  
JPRS 44,448

Personnel Problems of German Ocean Shipping as Reflected in a Poll, 7 pp.  
GERMAN, per, Marine, No 1, Jan 1968, pp 5-8.  
Dept of Commerce  
Maritime Administration

Present State and Development of Plastics Production in the DDR, by C. Bischof,  
GERMAN, per, Plaste Und Kautschuk, No 9, 1967, pp 649-552.  
ACSI J-4004  
ID 2206061167

Eastern Europe  
Economic (Contd)

CEMA 1968 General Delivery Terms, by K. Mehnert, 12 pp.  
GERMAN, per, Recht in der Aussenwirtschaft, supplement to Sozialistische Aussenwirtschaft, East Berlin, No. 1, Jan 68, pp. 1-5.  
JPRS 44,540

Fifty Years of Inland Waterway Shipping in the USSR.  
GERMAN, per, Schiffbautechnik, No 17, Oct 1967, pp 577-586.  
DIA LN 394-68

A Report on Information Gained from the Use of Sea Going Motor Cargo Ships, by H. J. Pusch & V. Mitin, 29 pp.  
GERMAN, per, Schiffbautechnik, No 17, Oct 1967, pp 577-586.  
DIA LN 394-68

Observations on Foreign Trade Transportation, by Gerhard Bein, 6 pp.  
GERMAN, journal, Seeverkehr, No. 2, East Berlin, Feb 68, pp. 55-57.  
JPRS 44,674

West German Observations on GDR Economic Development, by H.D. Schulz, 7 pp.  
GERMAN, weekly, Vorwaerts, Bonn, 21 Dec 67, p. 33.  
JPRS 44,482

Greater Efficiency of Investments Discussed, by Dr. Kurt Fichtner, 10 pp.  
GERMAN, newspaper, Die Wirtschaft, East Berlin, 10 Jan 68, pp. 3-4.  
JPRS 44,646

Reporting Procedures for Industry, Construction, Investment, and Material Management in 1968, by Felix Arnold, 8 pp.  
GERMAN, per, Die Wirtschaft, East Berlin, No. 39, 28 Jan 67, pp. 13-14.  
JPRS 44,505

Eastern Europe  
Economic (Contd)

Changes in the Supply Structure of the Metallurgical Trade Branch Planned, by Lisolotte Fast, 5 pp.  
GERMAN, per, Die Wirtschaft, East Berlin, 6 Dec 67, p. 20.  
JPRS 44,532

The Lessons of National Economic Programming, by Jozsef Sivak, 7 pp.  
HUNGARIAN, per, Figyelo, Budapest, 24 Jan 68, p. 3.  
JPRS 44,423

Problems of Economic Geography in the Foundry and Forging Industries in the Period of the Third Five-Year Plan, by Dr. Zoltan Antal, 25 pp.  
HUNGARIAN, per, Foldrajzi Közlemények, Vol. 15 (91), No. 3, Budapest, 1967, pp. 211-229.  
JPRS 44,651

Preparation for the New Economic Mechanism in the Machine Industry, by Dr. Byula Morgos, 15 pp.  
HUNGARIAN, per, Gépgyártás Technológia, Vol 8, No. 1, Budapest, Jan 68, pp. 1-5.  
JPRS 44,539

The Development of Technological Conditions Along the Internationally Important Danube Waterway, 17 pp.  
HUNGARIAN, per, Közlekedéstudományi Szemle, No 9, Sept 1964, pp 396-402.  
DIA LN 450-68

The Multilevel Model of Economic Programming, by Jance Kornyal, 21 pp.  
HUNGARIAN, per, Közgazdasági Szemle, No. 1, Budapest, Jan 68, pp. 54-68.  
JPRS 44,602

Activity of the Railway Scientific Research Institute in 1966, by N. Jozsef, 10 pp.  
HUNGARIAN, per, Közlekedés Tudományi Szemle, Apr 1967, pp 164-168.  
DIA LN 73-68

Eastern Europe  
Economic (Contd)

Railroad Economic and Technological Gazette of the Railroad Workers, 78 pp.  
HUNGARIAN, per, Vasut, Vol XVII, No 4, Apr 1967, pp 1-32.  
DIA LN 69-68

Development of Combined Hauling and Transportation Under Conditions of the Transportation Organization of the USSR, by J. Stary, 27 pp.  
HUNGARIAN, per, Zelesnicni Doprava a Technika, May 1967, pp 102-104; 124-125.  
DIA LN 269-68

Albrecht Comments on 1968 State Budget, by Jerzy Albrecht, 14 pp.  
POLISH, per, Finanse, No. 1, Jan 68, pp. 1-13.  
JPRS 44,697

Summary of Czeslaw Wisniewski's Opening Speech at Trade Union Plenum, 8 pp.  
POLISH, daily, Glos Pracy, No. 24, 29 Jan 68, p. 3.  
JPRS 44,428

Remuneration Methods for Retail Trade Employees, by Edward Bochacz, 13 pp.  
POLISH, per, Handel Wewnętrzny, Nov-Dec 67, pp. 45-56.  
JPRS 44,702

Imported Commodities for Domestic Market, by Henryk Kosk, 12 pp.  
POLISH, per, Handel Wewnętrzny, No. 6, Nov-Dec 67, pp. 57-65.  
JPRS 44,702

1968-1969 Investment Plan, by Henryk Szczepanowski, 11 pp.  
POLISH, per, Inwestycja i Budownictwo, No. 12, Dec 67, pp. 23-27.  
JPRS 44,423

SEJM Resolution Covering 1968, 1969 Economic Plans, by Czeslaw Wycech, 45 pp.  
POLISH, per, Monitor Polski, No. 70, Warsaw, 21 Dec 67, pp. 703-721.  
JPRS 44,505

Eastern Europe  
Economic (Contd)

Consumption Pattern and Domestic Market Problems, by Stanislaw Kuzinski, 11 pp.  
POLISH, per, Nowe Drogi, No. 1, Jan 68, pp. 37-46.  
JPRS 44,702

State Local Industry Role in Backward Areas, by Zygmunt Gradal, 6 pp.  
POLISH, per, Przegląd Drobnej Wytworczosci, No. 22, Nov 67, pp. 6-7.  
JPRS 44,447

Role of Services in Economic Growth Noted, 5 pp.  
POLISH, per, Przegląd Drobnej Wytworczosci, Warsaw, No. 23-24, Dec 67, pp. 2-4.  
JPRS 44,572

Foundry Production Shows Improvement, by Franciszek Strek, 11 pp.  
POLISH, per, Przegląd Odlewnictwa, No. 12, Warsaw, Dec 67, pp. 365-369.  
JPRS 44,577

Comparison of Consumer Demand and Supply, by Jan Glowczyk, 9 pp.  
POLISH, newspaper, Zycie Gospodarcze, No. 51, Warsaw, 17 Dec 67, pp. 1 and 2.  
JPRS 44,572

Living Conditions on State Farms, by Marek Ignar, 8 pp.  
POLISH, newspaper, Zycie Gospodarcze, No. 51, Warsaw, 17 Dec 67, p. 8.  
JPRS 44,652

Planning as a Major Socio-Economic Administrative Method, by Dr. Vasile Rausser, 25 pp.  
RUMANIAN, per, Analele Institutului de Studii Istorice si Social-Politice de pe Linga CC al PCR, No. 6, Bucharest, Nov-Dec 67, pp. 80-101.  
JPRS 44,505

Eastern Europe  
Economic (Contd)

Increased Responsibilities for the Use of Investment Funds, by Tiberiu Horvath, 13 pp.  
RUMANIAN, journal, Finante si Credit, No. 12, Dec 67, pp. 13-21.  
JPRS 44,533

Wholesale Prices as Levers for Increasing Economic Efficiency, by Aurel Berea, 15 pp.  
RUMANIAN, journal, Finante si Credit, No. 12, Dec 67, pp. 22-32.  
JPRS 44,602

The Increasing Role of Credit in Carrying Out Economic Activities, by Ion Beloiu, 9 pp.  
RUMANIAN, per, Finante si Credit, No. 12, Dec 67, pp. 33-39.  
JPRS 44,482

Results of Experimentation With Some Measures for Improved Planning, Financing, Crediting and Managing of Enterprises, by Gheorghe Musatescu, 7 pp.  
RUMANIAN, journal, Finante si Credit, No. 12, Dec 67, pp. 51-56.  
JPRS 44,623

All Local Services to be Expanded, by Armand Popper, 5 pp.  
RUMANIAN, weekly, Gazeta Finantelor, Vol. 16, No. 757, Bucharest, 17 Jan 68, pp. 1 and 5.  
JPRS 44,581

Proceedings of the National Conference of Regiune State Insurance Officials, 11 pp.  
RUMANIAN, weekly, Gazeta Finantelor, Vol. 16, No. 759, Bucharest, 31 Jan 68, pp. 4 and 5.  
JPRS 44,623

Increased Incentives by an Improved Wage System, by Petre Lupu, 17 pp.  
RUMANIAN, per, Probleme Economice, Bucharest, No. 11, Nov 67, pp. 19-32.  
JPRS 44,482

Eastern Europe  
Economic (Contd)

Management and Organization of Industry on a Higher Level, by Prof Bucur Schiopu, 14 pp.

RUMANIAN, per, Probleme Economice, Bucharest, No. 11, Nov 67, pp. 33-43.

JPRS 44,505

Survey of the Evolution of Accumulations, by N. Ianovici, 17 pp.

RUMANIAN, per, Probleme Economice, Bucharest, No. 11, Nov 67, pp. 70-82.

JPRS 44,542

Coordination of Financial and Credit Relations in the Present Stage of Economic Development, by Al. Babe, 16 pp.

RUMANIAN, per, Probleme Economice, Bucharest, No. 11, Nov 67, pp. 93-105.

JPRS 44,581

Creation and Utilization of the Social Product and National Income, by I. Ravar, 25 pp.

RUMANIAN, per, Probleme Economice, Vol XX, No. 12, Bucharest, Dec 67, pp. 89-105.

JPRS 44,482

Industry as the Decisive Branch of the National Economy, by G. Ionescu, 15 pp.

RUMANIAN, per, Probleme Economice, Vol XX, No. 12, Bucharest, Dec 67, pp. 106-118.

JPRS 44,482

Socialist Industrialization as the Base for Efficient Utilization of Manpower, by M. Enache, 22 pp.

RUMANIAN, per, Probleme Economice, Vol XX, No. 12, Bucharest, Dec 67, pp. 119-134.

JPRS 44,482

Present Practical and Theoretical Problems of Arbitration in Rumanian Foreign Trade, by I. Nestor, 17 pp.

RUMANIAN, per, Revista Romana de Drept, No. 1, Bucharest, Jan 68, pp. 38-51.

JPRS 44,621

Eastern Europe  
Economic (Contd)

Determination of Economic Effectiveness of Investments in State-Farm Enterprises, by Dr. Eugen Jianu, 9 pp.

RUMANIAN, per, Revista de Statistica, No. 11, Bucharest, Nov 67, pp. 23-30.

JPRS 44,652

Development of the Aluminum Industry, by I. Alexandrescu, 5 pp.

RUMANIAN, newspaper, Viata Economica, Bucharest, 22 Dec 67, p. 8.

JPRS 44,424

Yugoslav Investment Bank Under New Operating Conditions, 8 pp.

SERBO-CROATIAN, per, Ekonomika Politika, Vol , Belgrade, 19-25 Feb 68, pp. 208-209.

JPRS 44,662

Administration and Self-Management in Yugoslavia, by Ivo Dujmovic, 29 pp.

SERBO-CROATIAN, per, Encyclopaedia Moderna, Zagreb, No. 5-6, Sept-Dec 67, pp. 331-338.

JPRS 44,423

The Business Financial Results of Economic Organizations in 1966 and 1967, 14 pp.

SERBO-CROATIAN, journal, Jugoslovenski Pregled, No. 10, Belgrade, Oct 67, pp. 415-418.

JPRS 44,423

Should Prices be Liberalized Further, by Ivo Karli, 7 pp.

SERBO-CROATIAN, per, Nova Trgovina, Belgrade, No. 10, Oct 67, pp. 459-461.

JPRS 44,602

Survival and Development of Maritime Passenger Shipping, by Gracija Jankovic and Ivo Milat, 23 pp.

SERBO-CROATIAN, journal, Pomorstvo, No. 11-12, Rijeka, Nov-Dec 67, pp. 361-366.

JPRS 44,572

Eastern Europe  
Economic (Contd)

The Yugoslav Foreign Trade Bank to Aid in Increasing Exports, 5 pp.  
SERBO-CROATIAN, newspaper, Privredni Pregled, Belgrade, 7 Jan 68, p. 2.  
JPRS 44,540

Investments in and Development of Production of Socialized Farms, by Dr. Peter Milanovic, 9 pp.  
SERBIAN, newspaper, Privredni Pregled, Belgrade, 21 Jan 68, p. 7.  
JPRS 44,425

Geological Exploration of General Social Interest (Supported by the Federation) Up to 1970, by Pavle Pejovic, 5 pp.  
SERBO-CROATIAN, newspaper, Privredni Pregled, Belgrade, 28 Jan 68, p. 3.  
JPRS 44,424

Changes in the Social Insurance System, by Djuro Vekic, 11 pp.  
SERBO-CROATIAN, newspaper, Privredni Pregled, Belgrade, 28 Jan 68, pp. 7-8.  
JPRS 44,428

Work Program of Yugoslav Post Offices, Telegraphs, and Telephones Company, 30 pp.  
CROATIAN, per, FTI Vesnik, No. 4, Item 70, 16 Feb 68, pp. 41-53.  
JPRS 44,691

The Guarantee of the Opstina for Credits Granted to Enterprises, by B. Djinic, 8 pp.  
SERBO-CROATIAN, per, Radna i Drustvena Zajednica, Belgrade, No. 10-11, Oct-Nov 67, pp. 519-525.  
JPRS 44,533

Measures and Instruments of Economic Policy in 1968, 15 pp.  
SERBO-CROATIAN, np, Savremena Praksa, Belgrade, 1 Jan 68, pp. 1, 11, and 12.  
JPRS 44,482

Inadequate Legal Regulation of Relations in the Amalgamated Enterprise, by Dragan Markovic, 7 pp.  
SERBO-CROATIAN, np, Savremena Praksa, Belgrade, 1 Jan 68, p. 4.  
JPRS 44,482

Eastern Europe  
Economic (Contd)

The Regulation on Guarding Business Secrets, 6 pp.  
SERBO-CROATIAN, per, Savremena Praksa, Belgrade, Appendix No. 160, 5 Feb 68, pp. 21-24.  
JPRS 44,648

Trend in Investment Spending in 1967, by Milovan Kuzmanovic and Izudin Milagovic, 7 pp.  
SERBO-CROATIAN, journal, Vesnik Jugoslovenske Investicione Banke, Belgrade, Nov 67, pp. 5-7.  
JPRS 44,646

The Development of the Aluminium Industry in the CEMA Countries, 10 pp.  
SERBO-CROATIAN, journal, Vesnik Jugoslovenske Investicione Banke, Belgrade, Nov 67, pp. 23-26.  
JPRS 44,651

Lenin's Economic Policy -- Model for Czechoslovakia, by Jozef Ceconik, 5 pp.  
SLOVAK, newspaper, Pravda, Bratislava, 2 Feb 68, p. 8.  
JPRS 44,542

Political

The Improvement of the Work Method of Party Committee Organs is a Continuing Necessity, by Dashnor Mamaqi, 15 pp.  
ALBANIAN, per, Bruka e Partise, No. 11, Tirana, Nov 67, pp. 79-92.  
JPRS 44,671

Bulgarian Analysis of Marxism, by Deyan Pavlov, 18 pp.  
BULGARIAN, journal, Filosofska Misul, Vol XXIII, No. 6, Sofia, 1967, pp. 71-86.  
JPRS 44,600

Eastern Europe  
Political (Contd)

For a Change in the Party Guidance of the Komsomol, 9 pp.  
BULGARIAN, per, Partien Zhivot, No. 2, Sofia, Feb 68, pp. 3-10.  
JPRS 44,672

Government Decree on Establishing Departments Within the National Committees, 5 pp.  
CZECH, decree, Sbirka Zakonu Ceskoslovenske Socialisticke Republiky, Prague, No. 4, 20 Jan 68, pp. 17-19.  
JPRS 44,672

Professor Ardenne on Politics and Natural Science, by Dr. Manfred von Ardenne, 5 pp.  
GERMAN, newspaper, Neues Deutschland, East Berlin, 20 Jan 68, p. 10.  
JPRS 44,534

Speech by First Secretary of German CP, by Max Reimann, 20 pp.  
GERMAN, per, Wissen und Tat, No. 7/8, July/August 1967, pp. 2-15.  
JPRS 44,450

Tenth Meeting of German CP Central Committee, by Josef Ledwohn, 22 pp.  
GERMAN, per, Wissen und Tat, No. 7/8, July/August 1967, pp. 16-30.  
JPRS 44,450

Interview With Czechoslovak Writer Ivan Klima, by Otto Griese, 5 pp.  
GERMAN, newspaper, Die Zeit, 26 Jan 68, p. 12.  
JPRS 44,483

Interview With Czechoslovak Writer A.J.Liehm, by Otto Griese, 5 pp.  
GERMAN, newspaper, Die Zeit, Hamburg, No. 5, 2 Feb 68, p. 11.  
JPRS 44,483

Gomulka Speech to People's Council Chairmen, by Wladyslaw Gomulka, 14 pp.  
POLISH, newspaper, Trybuna Ludu, Warsaw, 4 Feb 68, p. 3.  
JPRS 44,575

Eastern Europe  
Political (Contd)

The Concept of the Nation Under Socialism: (3) The Evolution of the Marxist Concept of the Nation, by El. Flores, 18 pp.  
RUMANIAN, per, Analele Institutului de Studii Istorice si Social-Politice de pe Linia CC al PCR, No. 6, Bucharest, Nov-Dec 67, pp. 66-79.  
JPRS 44,464

Rumanian Law on Manufacturing, Trade and Service Marks, 15 pp.  
RUMANIAN, publication, Buletinul Oficial al Republicii Socialiste Romania, Vol. 3, No. 114, Part I, Bucharest, 29 Dec 67, pp. 881-886.  
JPRS 44,604

Idea of National Sovereignty Upheld, by Gavrilă Rus, 8 pp.  
RUMANIAN, weekly, Cronica, Vol 2, No. 51, Bucharest, 23 Dec 67, pp. 1 and 9.  
JPRS 44,534

The Party as a Leading Force in Socialist Society, by I.Mitran and P. Radovan, 14 pp.  
RUMANIAN, per, Lupta de Clasa, Bucharest, No. 12, Dec 67, pp. 14-24.  
JPRS 44,648

Survey of Socio-Political Legislation of the Past 20 Years, by Vasile Patulea, 17 pp.  
RUMANIAN, per, Revista Romana de Drept, No. 12, Bucharest, Dec 67, pp. 7-22.  
JPRS 44,534

Iliescu Report at UTC National Conference, by Ion Iliescu, 24 pp.  
RUMANIAN, newspaper, Scinteia Tineretului, Bucharest, 10 Feb 68, pp. 1-2.  
JPRS 44,575

Ulbricht Discusses New GDR Constitution in Pravda, by Walter Ulbricht, 11 pp.  
RUSSIAN, newspaper, Pravda, Moscow, 14 Feb 68, pp. 4-6.  
JPRS 44,648



Eastern Europe  
Political (Contd)

State Law and the Charters of Working Organizations, by Aleksandar Stojanovic, 16 pp.

SERBO-CROATIAN, per, Radna i Drustvena Zajednica, Belgrade, No. 10-11, Oct-Nov 67, pp. 526-537.

JPRS 44,533

Law on the Acquisition, Possession, and Bearing of Arms (Revised Text), 16 pp.

SERBO-CROATIAN, per, Sluzbeni List SFRJ, Belgrade, No. 52, 22 Dec 67, pp. 1261-1265.

JPRS 44,609

The Task of Organizing the Public Security Service, by Ante Granic, 8 pp.

SERBO-CROATIAN, per, 13 Maj, Belgrade, No. 11, Nov 67, pp. 13-19.

JPRS 44,534

Ideological and Political Problems in the Development of Self-Management and the Activity of Members and Organizations of the Alliance of Communists in the Federal and Serbian Secretariats for Internal Affairs, by Mirko Ivkovic and Milorad R.Jeftovic, 7 pp.

SERBO-CROATIAN, per, 13 Maj, Belgrade, No. 11, Nov 67, pp. 61-71.

JPRS 44,534

Effectiveness of Internal Affairs Service Dependent on Cooperation With Society and Democratic Institutions, by Radovan Stijacic, 8 pp.

SERBO-CROATIAN, journal, 13 Maj, No. 12, Belgrade, Dec 67, pp. 9-15.

JPRS 44,494

Military

Incendiary Substances and Protective Agents, by Col. K. Shterev, 9 pp.

BULGARIAN, per, Armevski Pregled, No. 12, Sofia, Dec 67, pp. 18-23.

JPRS 44,426

Eastern Europe  
Military (Contd)

Throwing Hand Grenades

CZECH, per, Metodyka Vycviku ve Strelbe Rucnich Zbrani, 1966, pp 86-92.

ACSI J-4068

ID Incl to 2824034367

Firing Antitank Small Arms.

CZECH, per, Metodyka Vycviku ve Strelbe Rucnich Zbrani, 1966, pp 198-205.

ACSI J-4068

ID Incl to 2824034367

Tatra and the Armed Forces After 1945, by L. Szpuk, 11 pp.

CZECH, per, Vojenska Technika, No 7, 1967, pp 17-20.

DIA LN 356-68

Antitank Missiles (Documentary Film on the Soviet Armed Forces).

GERMAN, per, National Zeitung, No 256, 1 Nov 1967, p 3.

\*FTD-HT-23-235-68

Admiral Verner Commemorates Soviet Army Anniversary, by W. Verner, 9 pp.

GERMAN, per, Neuer Weg, No. 3, Berlin, Feb 68, pp. 138-142.

JPRS 44,525

Plotting, Gun Laying and Optical Equipment of the Artillery, by Herbert Mai, 119 pp.

GERMAN, bk, Die Plan - Richt - und Optischen Gerate der Artillerie, 1961, 210 pp.

ACSI J-2750

ID 2204026967

Self-Protection Training in the (West German) Federal Armed Forces, by Max Gohl.

GERMAN, per, Truppenrevue, No 12, 1966.

ACSI J-3164

ID 2204036067

East German Admiral Discusses Visit to North Korea, by Adm. W. Verner, 9 pp.

GERMAN, newspaper, Volksarmee, East Berlin, No. 50, 11 Dec 67, pp. 12-13.

JPRS 44,689

Eastern Europe  
Military (Contd)

Artillerymen.  
RUMANIAN, per, Viata Militara, No 12, 1967,  
pp 8-12.  
\*ACSI J-4507  
ID 2204010068

Yugoslav National Defense as a Form  
of Citizen Self-Defense, by  
Dr. Savka Dabcevic-Kucar, 9 pp.  
SERBO-CROATIAN, newspaper, Narodna  
Armija, Belgrade, 29 Dec 67, p. 3.  
JPRS 44,622

Law on Allowance for Children of Active-  
Duty Army Personnel, 14 pp.  
SERBO-CROATIAN, journal, Sluzbeni List  
SFRJ, No. 54, Belgrade, 30 Dec 67, pp. 1325-  
1328.  
JPRS 44,426

Sociological

Public Health Planning, by Iv.  
Sachanov, 10 pp.  
BULGARIAN, per, Khigiena i Zdraveo-  
pazvane, No. 6, Sofia, Nov/Dec 67,  
pp. 517-525.  
JPRS 44,609

Planning of In-Patient Medical Aid,  
by A. Tsenov, 12 pp.  
BULGARIAN, per, Khigiena i Zdraveo-  
pazvane, No. 6, Sofia, Nov/Dec 67,  
pp. 547-555.  
JPRS 44,609

Vigilance and Pessimism, 6 pp.  
BULGARIAN, per, Literaturni Front, Sofia,  
18 Jan 68, p. 1.  
JPRS 44,437

Effect of Scientific-Technical  
Revolution on Czechoslovak Apprentice  
Schools, by Oldrich Mikulecky, 5 pp.  
CZECH, newspaper, Rude Pravo,  
Prague, 8 Feb 68, p. 5.  
JPRS 44,609

Eastern Europe  
Sociological (Contd)

Development Trends and Factors in  
Divorces, by Karl-Heinz Eberhardt,  
23 pp.  
GERMAN, per, Neue Justiz, Berlin,  
1 Feb 68, pp. 76-85.  
JPRS 44,661

West German Source Describes GDR Youth  
Criminality, by Willi Kinnigkeit, 5 pp.  
GERMAN, daily, Sueddeutsche Zeitung,  
Munich, 13/14 Jan 68, p. 7.  
JPRS 44,494

Comment on Schaff's "Philosophy  
of Man", by Kazimierz Ochocki, 6 pp.  
POLISH, per, Wspolczesnosc, Warsaw,  
31 Jan-13 Feb 68, p. 2.  
JPRS 44,648

Provisions and Advantages of New  
Forms of Insurance: Personal Insurance (10  
8 pp.  
RUMANIAN, per, Contemporarul,  
Bucharest, 17 Nov 67, p. 7.  
JPRS 44,609

Patriotism Upheld As Basis of Literature,  
14 pp.  
RUMANIAN, per, Lasul Literar, Iasi, No. 12,  
Dec 67, pp. 38-48.  
JPRS 44,437

Law No. 25/1967 Concerning Amnesty,  
by V. Ramureanu, 16 pp.  
RUMANIAN, per, Revista Romana de  
Drept, No. 1, Bucharest, Jan 68,  
pp. 3-14.  
JPRS 44,661

Tourism 1962-1967, by Dr. Milan Hazi,  
13 pp.  
SERBO-CROATIAN, per, Jugoslovenski  
Pregled, No. 10, Belgrade, Oct 67,  
pp. 423-426.  
JPRS 44,493

Juvenile Delinquency, by Dr. Dusan  
Cotic, 18 pp.  
SERBIA, per, Jugoslovenski Pregled,  
No. 10, Belgrade, Oct 67, pp. 429-434.  
JPRS 44,609

Eastern Europe  
Sociological (Contd)

The Financing of Education Under Republic Laws, by Roduljub Jemovic, 10 pp.  
SERBO-CROATIAN, journal, Jugoslovenski Pregled, No. 10, Belgrade, Oct 67, pp. 435-438.  
JPRS 44,609

Medical Aspects of Social Welfare for Industrial Workers, by Metodi Mikov, 12 pp.  
SERBO-CROATIAN, journal, Medicinski Pregled, Vol 20, No. 3-4, Novi Sad, March-April 1967, pp. 187-192.  
JPRS 44,609

Nourishment and Productivity, by Milan Bogdanovic, 33 pp.  
SERBO-CROATIAN, per, Produktivnost, No. 12, Belgrade, Dec 67, pp. 793-800.  
JPRS 44,502

The Need for Equality of Educational Opportunity, by Dr. Marko Veselica, 8 pp.  
SERBO-CROATIAN, per, Vjesnik u Srijedu, Zagreb, 10 Jan 68, p. 3.  
JPRS 44,599

The Cost and Financing of Education, by Dr. Marko Veselica, 8 pp.  
SERBO-CROATIAN, per, Vjesnik u Srijedu, Zagreb, 7 Feb 68, p. 5.  
JPRS 44,599

Western Europe

Economic

Automation and Centralization of the Stock Management of Royal Air Forces Deposits, by L. Rogier, 8 pp.  
DUTCH, per, De Militaire Spectator, No 7, July 1967, pp 379-382.  
DIA LN 220-68

Western Europe  
Economic (Contd)

Budget 1968 de la Protection Civile, by M. Edouard Charret, 15 pp.  
FRENCH, per, Protection Civile et Securite Industrielle, No 160, Dec 1967, pp 8-17.  
ACSI J-4333  
ID 2204005568

Marseille's Vocation as a Metropolis, by Nicole Delefortrie-Soubyroux, 42 pp.  
FRENCH, per, Revue de la Chambre de Commerce et D'Industrie de Marseille, No 786, Apr 1967, pp 203-234.  
DIA LN 398-68

Dunkirk: Port And Industries, by C. Della Valle, 61 pp.  
ITALIAN, per, Nuova Serie, No 7, 1963, pp 4-90.  
DIA LN 397-68

Economic Trawler Planning for a Shore Plant, by Albert Harloff & A. S. Bergens Høkaniske Verksteder  
NORWEGIAN, per, Konomisk Traler-Prosjektering For Et Land- Anlegg, pp 212-225.  
Dept of Navy N00 Contract Tr 3

Technical Press and Milieu During Technical Expansion.  
SWEDISH, per, Elektroteknisk Tidskrift, No 1, 11 Jan 1968.  
\*ACSI J-4562  
ID 2204011668

Further Modernisation of the Swedish Railways Education, by H. Rosengren, 6 pp.  
SWEDISH, per, SJ-NYT, No 17, 28 Sept 1967, pp 10-11.  
DIA LN 446-68

Political

CCP Course Criticized by Pro-Chinese Organ, 13 pp.  
DUTCH, monthly, De Kommunist, Amsterdam, Dec 67, pp 1-4.  
JPRS 44,600

Western Europe  
Political (Contd)

Development of Finnish CP Program Discussed, by Kalle Kuittinen, 5 pp. FINNISH, monthly, Kommunisti, No. 1, Helsinki, 1968, pp. 52-54. JPRS 44,546

Role of the Cell in the Development of a Communist, by Marcel Zaidner, 8 pp. FRENCH, journal, Cahiers du Communisme, Paris, Dec 67, pp. 43-52. JPRS 44,600

French CP's Ties With The Soviet CP, by Claude Harmel, 9 pp. FRENCH, per, Est & Ouest, Vol 19, No. 395, Paris, 16-31 Dec 67, pp. 1-5. JPRS 44,450

Evolution of Pro-Chinese French CP Discussed, by Claude Harmel, 40 pp. FRENCH, per, Est et Ouest, Paris, Vol 19, No. 395, 16-31 Dec 67, pp. 13-28. JPRS 44,490

Messages to French Marxist-Leninist CP Congress, 8 pp. FRENCH, weekly, L'Humanite Nouvelle, Vol 4, No. 86, Paris, 25 Jan 68, pp. 10-11. JPRS 44,546

French Marxist-Leninist CP Blasts Revisionism, by Jacques Jurquet, 24 pp. FRENCH, weekly, L'Humanite Nouvelle, Vol. 4, No. 87, Paris, 1 Feb 68, pp. 7-10. JPRS 44,600

Conflicting Communist Views in Belgium Aired, Editorial in Forces Wallonnes on Communists in Belgium, by Francois Perin, 5 pp. FRENCH, np, La Voix du Peuple, No. 5, 2 Feb 68, p. 2. JPRS 44,600

Western Europe  
Political (Contd)

Rebuttal of Perin Editorial, by Stephane Struelens, 7 pp. FRENCH, np, La Voix du Peuple, Brussels, No. 5, 2 Feb 68, pp. 2 and 9. JPRS 44,600

Open Letter to Francois Perin, by Stephane Struelens, 6 pp. FRENCH, np, La Voix du Peuple, Brussels, No. 6, 9 Feb 68, p. 9. JPRS 44,600

Speeches at Italian CP (M-L) Organizational Conference, 7 pp. ITALIAN, weekly, Nuova Unità, No.2, Rome, 13 Jan 68, pp. 1 and 4. JPRS 44,546

Italian View of Lenin's State and Revolution, by Lelio Basso, 13 pp. ITALIAN, per, Problemi del Socialismo, No. 26, Rome, Jan 68, pp. 34-46. JPRS 44,675

Instructions to PCI Cadre Members on "Guevara Line", by Augusto Illuminati, 5 pp. ITALIAN, weekly, La Sinistra, Rome, No. 3, 27 Jan 68, p. 14. JPRS 44,546

Italian Journal (M-L) Lauds Chinese Cultural Revolution, 26 pp. ITALIAN, quarterly, Vento dell'Est, No. 9, Milan, Jan-March 68, pp. 3-13, 13-20, and 84-94. JPRS 44,675

Debray Defended by Swedish Communist, by Costa Agren, 7 pp. SWEDISH, weekly, Tidsignal, Stockholm, No. 2, 10-16 Jan 68, pp. 13, 14. JPRS 44,546

Western Europe  
Military

Pressure Measurements on Board Her Majesty's Ship "Van Galen" during the Firing of the 4.5" Gun.

DUTCH, rpt, RVO-TWO Opdracht TL 8598  
23 Jan 1967.  
\*ACSI J-4466  
ID 2204009468

The French Battle Tank AMX-30, 7 pp.  
GERMAN, per, Truppendienst, 1967, pp 420-422.  
ACSI J-4323  
ID 2204004867

General Rules for Health Inspection of Draftees Into the Armed Forces.  
PORTUGUESE, per, Diario Oficial, Sect 1, Pt 1, June 1967, pp 6145-6152.  
DIA LN 437-68

Two-Oven Field Tent.  
SPANISH, rpt, Two-Oven Field Tent, 21 Mar 1967.  
\*ACSI J-4122  
ID Incl to 2889013467

The Protection of Shipping in Wartime, by S. Nordlander, 5 pp.  
SWEDISH, per, Civilt Forsvar, Apr-May 1967, pp 87-89.  
DIA LN 54-68

FOA 1 Rpt A1315-F15, A Compendium of Military Chemical Growth Prevention, by B. Wedin.  
SWEDISH, rpt, Defense Research Institute, Stockholm, Mar 1966, pp 1-40.  
\*ACSI J-4566  
ID 2204011868

Africa

Economic

Niger's Economic Situation in 1966, 6 pp.  
FRENCH, per, Bingo, No. 180, Dakar, Jan 68, pp. 27, 29, 33, 35, and 36.  
JPRS 44,407

Africa  
Economic (Contd)

The Operational Budget of the Ivory Coast for 1968, 5 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, Paris, No. 492, 17 Jan 68, pp. 9930-9932.  
JPRS 44,663

Special Investment and Equipment Budget for 1968, 7 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, No. 492, Paris, 17 Jan 68, pp. 9934-9937.  
JPRS 44,517

The Ivorian Public Investment Program, 1968-1970, 6 pp.  
FRENCH, per, Bulletin de l'Afrique Noire, Paris, No. 494, 31 Jan 68, pp. 9977-9980.  
JPRS 44,579

French Study on 1967 Economic Evolution of African Franc-Zone States, 6 pp.  
FRENCH, bulletin, Bulletin de l'Afrique Noire, No. 495, Paris, 7 Feb 68, pp. 9994-9996 and 10,001.  
JPRS 44,579

Mauritania's 1968 Budget Analyzed, 5 pp.  
FRENCH, per, Bulletin d'Afrique Noire, No. 496, Paris, 14 Feb 68, pp. 10013-10015.  
JPRS 44,629

Burundi Investment Code, 13 pp.  
FRENCH, publ., Bulletin Officiel du Burundi, Vol. 6, No. 9/67, Bujumbura, 1 Sept 67, pp. 338-343.  
JPRS 44,517

Survey of Community Activities, by Joseph Segers, 5 pp.  
FRENCH, per, Congo-Afrique -- Economie, Culture, Vie Sociale, Kinshasa, Vol. 8, No. 21, Jan 68, pp. 46-49.  
JPRS 44,550

Africa  
Economic (Contd)

Progress Report on Interim Development Plan, by Edouard Most, 5 pp.  
FRENCH, newspaper, Le Courrier d'Afrique, Kinshasa, 13-14 Jan 68, pp. 1,5; and 15 Jan 68, pp. 1,5.  
JPRS 44,579

Economic Outlook Favorable in the Intermediate Run, 6 pp.  
FRENCH, per, Europe-France Outre-Mer, Paris, No. 455, Dec 67, pp. 43-46.  
JPRS 44,552

Industrial Development is Promising, 6 pp.  
FRENCH, per, Europe-France Outre-Mer, Paris, No. 455, Dec 67, pp. 51-54.  
JPRS 44,552

Foreign Trade, 5 pp.  
FRENCH, per, Europe-France Outre-Mer, Paris, No. 455, Dec 67, pp. 55-56.  
JPRS 44,552

The Investments of FAC and FED, 5 pp.  
FRENCH, per, Europe-France Outre-Mer, Paris, No. 455, Dec 67, pp. 60-61.  
JPRS 44,552

Survey of Economic Development, 7 pp.  
FRENCH, newspaper, Le Moniteur Africain, No. 320, Dakar, 16 Nov 67, pp. 7-8.  
JPRS 44,407

Construction Materials Industry in Black Africa, 15 pp.  
FRENCH, newspaper, Le Moniteur Africain, No. 322, Dakar, 30 Nov 67, pp. 9, 11-12.  
JPRS 44,407

Prospects for the Implementation of the Second Four-Year Plan, by Habib Thiam, 31 pp.  
French, per, Le Moniteur Africain, Dakar, No. 328, 11 Jan 68, pp. 10-13, 14.  
JPRS 44,551

Africa  
Economic (Contd)

Peanut Price Drop Explained, by Daniel Cabou, 8 pp.  
FRENCH, per, Le Moniteur Africain, Dakar, No. 328, 11 Jan 68, pp. 14,16.  
JPRS 44,551

Development of the Economic and Social Council, by Leon Boissier-Palun, 6 pp.  
FRENCH, per, Le Moniteur Africain, Dakar, No. 328, 11 Jan 68, p.20.  
JPRS 44,551

Relations Between the Private Sector and the Government, by Henry-Charles Gallenca, 10 pp.  
FRENCH, per, Le Moniteur Africain, Dakar, No. 328, 11 Jan 68, pp. 23-24.  
JPRS 44,551

A General Survey of Guinean Economy, 6 pp.  
FRENCH, newspaper, Le Moniteur Africain, No. 330, Dakar, 25 Jan 68, pp. 4 and 8.  
JPRS 44,517

Social and Economic Conditions Appraised, 8 pp.  
FRENCH, newspaper, Le Moniteur Africain, No. 331, Dakar, 1 Feb 68, pp. 6, 11.  
JPRS 44,517

First Four-Year Plan a Success, 18 pp.  
FRENCH, newspaper, Le Moniteur Africain, No. 332, Dakar, 8 Feb 68, pp. 11-16.  
JPRS 44,579

Solutions for Dahomey's Economic Crisis Discussed, 6 pp.  
FRENCH, newspaper, Le Moniteur Africain, Dakar, No. 333, 15 Feb 68, pp. 6 and 8.  
JPRS 44,598

Report on the African Textile Industry, 8 pp.  
FRENCH, newspaper, Le Moniteur Africain, Dakar, No. 333, 15 Feb 68, pp. 10-12.  
JPRS 44,709

Africa  
Economic (Contd)

The Labor Market and Labor Market Policy in the Ivory Coast, by Manfred J.K. Hadrich, 25 pp.  
GERMAN, per, Afrika Heute, Bonn, No. 1, 15 Jan 68, pp. 1-8.  
JPRS 44,663

Native Personnel Wage Scales Set for Rio Muni Lumbering Industry, 6 pp.  
SPANISH, per, Potopoto, Vol. 16, No. 256, Bata, 29 Jan 68, p. 3.  
JPRS 44,579

Political

Boumedienne Concerned Over Quality of Journalism, 6 pp.  
ARABIC, magazine, al-Mujahid, Algiers, 7 Jan 68, pp. 4-5, 23, and 35.  
JPRS 44,478

Ambassadors of Mali and Guinea Expound Views in Tunisia, by Mohamed Bouharb, 5 pp.  
FRENCH, per, L'Action, Vol. 6, No. 1693, Tunis, 3 Feb 68, p. 3.  
JPRS 44,517

Dahomey After Eight Years of Independence, by Olympe Bhely-Quenum, 6 pp.  
FRENCH, magazine, L'Afrique Actuelle, No. 24, Paris, Jan 68, pp. 5-10.  
JPRS 44,407

Interview With Former President Hubert Maga of Dahomey, by Therese V. Kuoh, 6 pp.  
FRENCH, per, L'Afrique Actuelle, Paris, No. 25, Feb 68, pp. 2-5.  
JPRS 44,579

Gecom's Second Year, by Massela-Sikou, 9 pp.  
FRENCH, newspaper, Le Courrier d'Afrique, Kinshasa, 6-7 Jan 68, pp. 6 and 5.  
JPRS 44,517

Africa  
Political (Contd)

Need for Congo (Kinshasa) Supreme Court Argued, by Paul Kandi, 5 pp.  
FRENCH, newspaper, Le Courrier d'Afrique, Kinshasa, 22-23 Jan 68, pp. 2-3.  
JPRS 44,629

A Communist Appraisal of Ivorian Progress, by Yves Benot, 6 pp.  
FRENCH, review, Democratie Nouvelle, Paris, Vol. 21, Jan 68, pp. 36-38.  
JPRS 44,550

Opposition Between Clans in Algeria, by Henri Alleg, 14 pp.  
FRENCH, journal, Democratie Nouvelle, Paris, Jan 68, pp. 39-48.  
JPRS 44,598

Central African Students in Paris Oppose Their Country's Regime, 5 pp.  
FRENCH, weekly, per, L'Humanite Nouvelle, Vol. 4, No. 89, Paris, 15 Feb 68, p. 13.  
JPRS 44,629

Communist Plans and Intentions in Africa, 11 pp.  
FRENCH, newspaper, Le Journal AFAN, Abidjan, No. 144, 1-15 Dec 67, pp. 1-2; No. 146, 15-31 Jan 68, pp. 1-2; and No. 147, 1-15 Feb 68, pp. 1-2.  
JPRS 44,550

Relations Between the UMR and Africa, 8 pp.  
FRENCH, per, Le Moniteur Africain, Dakar, No. 331, 1 Feb 68, pp. 9 and 10.  
JPRS 44,550

High Commissioner Surveys Present Situation, 6 pp.  
FRENCH, per, Le Reveil de Djibouti, No. 6, Djibouti, 10 Feb 68, pp. 1 and 3.  
JPRS 44,709

Africa  
Political (Cont)

Nationalist Organizations and Aims in Cape Verde Islands, by Alfredo Margarido, 17 pp.  
FRENCH, monthly, Revue Francaise d'Etudes Politiques Africaines, Dakar, No. 25, Jan 68, pp. 68-83.  
JPRS 44,517

Administrative Changes Promulgated in Angola, 90 pp.  
PORTUGUESE, bulletin, Boletim Oficial de Angola, Luanda, 9 Jan 68, pp. 68-69, 12 Jan 68, pp. 77-89, and 13 Jan 68, pp. 99-106.  
JPRS 44,553

Military

The Malian People's Army, 6 pp.  
FRENCH, per, L'Essor Hebdomadaire, Bamako, 29 Jan 68, pp. 3,5,6,10.  
JPRS 44,579

Decree on General Status of Military Personnel, 21 pp.  
FRENCH, journal, Journal Officiel de la Republique du Dahomey, Vol 78, No. 24, Porto Novo, 1 Nov 67, pp. 689-696.  
JPRS 44,517

Sociological

A Great Effort in Human Training: The Highest Rate of School Enrollment in All Africa, 5 pp.  
FRENCH, per, Europe France Outre-Mer, Paris, No. 455, Dec 67, pp. 36, 38-39.  
JPRS 44,552

The Principal Projects Completed and Planned in the Field of Public Works, 5 pp.  
FRENCH, per, Europe-France Outre-Mer, Paris, No. 455, Dec 67, pp. 57-59.  
JPRS 44,552

Africa  
Sociological (Contd)

Religious Beliefs of the Bassa Tribe in Cameroon, 42 pp.  
FRENCH, quarterly, Le Monde Non-Chretien, Paris, Vol. 20, No. 83, July-Sept 67, pp. 13-55.  
JPRS 44,598

Ordinance Governing Dock Labor, 6 pp.  
SPANISH, newspaper, Fotopoto, Bata, Vol. 16, No. 253, 8 Jan 68, p. 4.  
JPRS 44,407

Middle East

Economic

Broad Lines of Our Supply Policy, 10 pp.  
ARABIC, newspaper, Al Ahram, Cairo, 12 Dec 67, pp. 5 and 7.  
JPRS 44,597

Skilled Labor Between Supply, Demand and Planning, 12 pp.  
ARABIC, per, al-Ahram al-Iqtisadi, Cairo, 15 Jan 68, pp. 22-26.  
JPRS 44,597

Structure of the Public Sector Organizations, by Anwar 'Abd al-Ghani Salamah, 14 pp.  
ARABIC, per, al-Iqtisad wa al-Muhasibah, Cairo, No. 238, Oct 67, pp. 8-12.  
JPRS 44,516

Reports and Statistics -- Suez Canal and Arab Oil, by Ahmad Farid Hasan, 18 pp.  
ARABIC, per, al-Iqtisad wa al-Muhasibah, Cairo, No. 238, Oct 67, pp. 38-44.  
JPRS 44,516

Framework of the Public Sector Organizations, by Anwar 'Abd al-Ghani Salamah, 14 pp.  
ARABIC, per, al-Iqtisad wa al-Muhasibah, Cairo, No. 24, Dec 67, pp. 11-15.  
JPRS 44,516



Middle East  
Economic (Contd)

Reports and Statistics -- Population and Land, by Ahmad Farid Hasan, 6 pp.  
ARABIC, per, al-Iqtisad wa al-Mahasibah, No. 24, Cairo, Dec 67, pp. 50-51.  
JPRS 44,516

Communist Analysis of Jordan's Present Economic Situation, 5 pp.  
ARABIC, biweekly, al-Ittihad, Haifa, 16 Feb 68, p. 3.  
JPRS 44,675

Science and Socioeconomic Development, 20 pp.  
ARABIC, per, al-Ta'bi'ah al-'Ammah wa al-Ihsa'i, Cairo, Jan 68, pp. 1-19.  
JPRS 44,524

Czech Trade Relations With Lebanon and Arab World, 7 pp.  
FRENCH, journal, Le Commerce du Levant, No. 89, 15 Jan 68, pp. I-III.  
JPRS 44,597

Lebanon's Trade With the CMA, by Andre Kعاتي, 8 pp.  
FRENCH, per, Le Commerce du Levant, Beirut, 15 Jan 68, pp. 54-57.  
JPRS 44,524

Syrian Economy Increasingly Dependent on Aid From Socialist Countries, by Issam El-Zaim, 5 pp.  
FRENCH, per, Le Monde Diplomatique, Paris, Jan 68, p. 13.  
JPRS 44,524

The Role of Water in the Lebanese Economy, 9 pp.  
FRENCH, per, L'Orient, Beirut, 22 Jan 68, p. 4.  
JPRS 44,597

Middle East  
Economic (Contd)

New Salary Scale Provides Increases for Civil Servants, Pensioners, 5 pp.  
GREEK, newspaper, Elevtheros Kosmos, Athens, 28 Jan 68, p. 12.  
JPRS 44,701

New Civil Service Salary Scale Published, 7 pp.  
GREEK, newspaper, Elevtheros Kosmos, Athens, 30 Jan 68, p. 7.  
JPRS 44,701

Agrarian Changes in the Republic of Iraq, by Sergey Nikolayevich Alitovskiy.  
RUSSIAN, bk, Agrarnyy Vopros V Sovremennoy Irake, 1966, pp 128-173.  
ACSI J-4234  
ID 2204002368

Cairo Today, 9 pp.  
RUSSIAN, per, Ognek, No 29, Jul 1967, p 4.  
DIA LN 199-68

The Aswan Dam and Fisheries in the UAR, by Ahmed Barganila.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 10, 1967, pp 92-93.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Political

Changes in France's Attitude Toward Israel and UAR, by Lutfi al-Khawli, 19 pp.  
ARABIC, newspaper, al-Ahram, Cairo, 7, 8, and 9 January, 1968.  
JPRS 44,524

Events in Arabian Gulf Region Reviewed, by Raja Makkawi, 8 pp.  
ARABIC, per, Akhir Sa'ah, Cairo, 7 Feb 68, p. 1, 16-17.  
JPRS 44,701

Playing With Dialectics, 11 pp.  
ARABIC, newspaper, Ila al-Anam, Beirut, 4 Feb 68, p. 3.  
JPRS 44,701

Middle East  
Political (Contd)

The Soviet Union Prepares for Small Wars, by Faruq Al-Qadi, 10 pp.  
ARABIC, per, Rosa Al-Yusuf, Cairo, 15 Jan 68, pp. 4-5 and 50.  
JPRS 44,439

Federations Regroup Nationalized Industries, 6 pp.  
FRENCH, per, Le Commerce du Levant, Beirut, 27 Jan 68, pp. 1, 6.  
JPRS 44,554

The PCI and the 1968 Election, by Ermette Alba, 9 pp.  
FRENCH, review, Est et Ouest, Paris, No. 398, 1-15 Feb 68, pp. 22-25.  
JPRS 44,546

Frenchman Says Budapest Congress a Revisionist Plot, by Marcel Juliot, 6 pp.  
FRENCH, weekly, L'Humanite Nouvelle, Vol. 4, No. 86, Paris, 25 Jan 68, p. 3.  
JPRS 44,546

Manifesto of the Greek Marxist-Leninists, 11 pp.  
FRENCH, newspaper, La Voix du Peuple, Brussels, 5 Jan 68, pp. 10-11.  
JPRS 44,554

Interview With Golda Meir, 10 pp.  
HEBREW, newspaper, Davar and Lamerhav, Tel Aviv, 21 Jan 68, pp. 3, 14.  
JPRS 44,439

Significance of Merged Israel Labor Party, by Moshe Carmel, 7 pp.  
HEBREW, newspapers, Davar and Lamerhav, Tel Aviv, 21 Jan 68, pp. 6, 21.  
JPRS 44,516

Interview With Zev Tsur, by L. Haim, 5 pp.  
HEBREW, newspapers, Davar and Lamerhav, Tel Aviv, 21 Jan 68, p. 4.  
JPRS 44,439

Middle East  
Political (Contd)

Interview With Shimon Peres: Five Challenges Face the Party, by E. Yoeli, 6 pp.  
HEBREW, newspapers, Davar and Lamerhav, Tel Aviv, 21 Jan 68, p. 4.  
JPRS 44,439

Israel's 3-Party Merger: Charter of Basic Principles, 8 pp.  
HEBREW, newspaper, Davar, Tel Aviv, 22 Jan 68, p. 5.  
JPRS 44,516

Military

List Officer Retirements and Promotions, 6 pp.  
GREEK, per, To Vima, Athens, 6 Feb 68, p. 8, and 8 Feb 68, p. 5.  
JPRS 44,701

Sociological

A Study in the Society of Iraq, by Dr. Ali Wardi, 193 pp.  
ARABIC, bk, 1965, Sect I: pp 11-116; Sect II, pp 258-370; Chap 6, pp 142-165; Chap 9, pp 222-257.  
ACSI J-4093  
ID 2204000268

The Syrian Experiments: Impressions of a Trip, by Dr. Heiner Winkler, 20 pp.  
GERMAN, per, Die Wirtschaft, East Berlin, 17 Jan 68, pp. 29-30, 24 Jan 68, pp. 22-23; 31 Jan 68, p. 23.  
JPRS 44,701

Far East

Economic

Communist China's Agriculture in the Past Year, by Lin Ch'en, 15 pp. CHINESE, per, Fei-ch'ing Yen-chiu, Vol. 1, No. 12, 31 Dec 67, pp. 40-47.

JPRS 44,680

A Review of Agricultural Production for 1967, by Phan Quang, 6 pp.

VIETNAMESE, per, Nhan Dan, Hanoi, 5 Jan 68, p. 2.

JPRS 44,491

Black Market Dealings on the Chinese Mainland, by Kuan Shan-yuan, 18 pp. CHINESE, journal, Fei-ch'ing Yueh-pao, Vol. 10, No. 11, Taipei, 1 Jan 68, pp. 51-58.

JPRS 44,529

Chinese Communist Industry During the Past Year, 22 pp.

CHINESE, per, Fei-ch'ing Yenchiu, Taipei, Vol 1, No. 12, 31 Dec 67, pp. 50-60.

JPRS 44,529

The Shaky Monetary System of the Capitalist World, by Nguyen Huu Chinh, 5 pp.

VIETNAMESE, np, Nhan Dan, Hanoi, 13 Jan 68, p. 4.

JPRS 44,469

Build Up Local Economy, by Phan Dien, 12 pp. VIETNAMESE, per, Nhan Dan, Hanoi, 16 Jan 68, p. 2.

JPRS 44,491

Agricultural Economic Zoning in the North, by Hong Danh, 14 pp.

VIETNAMESE, per, Tin Tuc Hoat Dong Khoa Hoc, Hanoi, Nov 67, pp. 12-19.

JPRS 44,714

Fulfillment of 1967 State Plan, by Nguyen Van Dao, 6 pp.

VIETNAMESE, per, Quan Doi Nhan Dan, Hanoi, Viet., 8 Jan 68, p. 4.

JPRS 44,670

Far East  
Political

Premier Cho's Directives in Interview With Representatives from Both Sides of Canton Local District, 10 pp.

CHINESE, newspaper, Hsin-wan Ping, Canton, No. 9, 9 Nov 67.

JPRS 44,414

Revolutionary Overseas Chinese Join Vietnamese, 8 pp.

CHINESE, newspaper, Bao Tan Viet Hoa, Hanoi, 1 Jan 68, pp. 1, 4.

JPRS 44,583

Directory of Chinese Communists -- Forward and Table of Contents, 44 pp.

CHINESE, per, Chung-kung Jen-ming-lu, Taipei, August 1967, pp. 3-4 and 1-24.

JPRS 44,592

Agreement of Delegation from Both Sides of Canton Local District to Peking on

"Support of Army and Love of People", 6 pp.

CHINESE, newspaper, Hsin-wan Ping, Canton, No. 9, 9 Nov 67.

JPRS 44,414

Chou En-Lai Comments on Liu Shao-Chi's Mistakes, 5 pp.

CHINESE, newspaper, Hung Chan Pao, Canton, No. 15, 29 Nov 67, pp. 1, 4.

JPRS 44,578

Report on Armed Struggle in Printing Cooperative, 9 pp.

CHINESE, newspaper, Kuang-yin Hung-ch'i, Canton, Special Issue, 1 Nov 67, pp. 1, 4.

JPRS 44,574

1968 Catalogue of Chinese Communist Publications, 7 pp.

CHINESE, publication, Pao-k'an Mu-lu, Peking, 1968.

JPRS 44,574

Declaration of Indonesian Communists, by Branko Lazitch, 8 pp.

FRENCH, per, Est & Ouest, Paris, 1-15 Jan 68, pp. 1-4.

JPRS 44,580

Far East  
Political (Contd)

Delegates of Japanese CP and the USSR Hold Meeting, 6 pp.  
JAPANESE, newspaper, Akahata, Tokyo, 12 Feb 68, p. 1.  
JPRS 44,675

Enterprise Administration Improved in Cambodia, by Keat Chhon, 15 pp.  
FRENCH, per, Le Sangkum, Phnom Penh, Jan 68, pp. 35-41  
JPRS 44,696

The Results of Escalation, by G. Chaliand, 8 pp.  
FRENCH, per, Partisans, Paris, No. 40, Jan-Feb 68, pp. 60-65.  
JPRS 44,700

The Japanese Communist Party's Dispute With the Shiga Faction, by Tetsuzo Fuwa, 13 pp.  
JAPANESE, newspaper, Akahata, Tokyo, 20 Jan 68, pp. 4-5.  
JPRS 44,580

Twenty-Second Anniversary of North Korean Socialist Labor Youth League, by O Ki-ch'on, 16 pp.  
KOREAN, newspaper, Nodong Ch'ongnyon, P'yongyang, 14 Jan 68, pp. 2-3.  
JPRS 44,503

Preparation for Unification Urged, 8 pp.  
KOREAN, newspaper, Nodongja Sinmun, Pyongyang, 11 Jan 68, p. 2.  
JPRS 44,558

Support for Army Urged, 9 pp.  
KOREAN, newspaper, Nodongja Sinmun, Pyongyang, 11 Jan 68, p. 3.  
JPRS 44,558

Carry Out the Ten-Point Program of Kim Il-Song, 23 pp.  
KOREAN, newspaper, Nodongja Sinmun, P'yongyang, 13 Jan 68, pp. 2-4.  
JPRS 44,503

Far East  
Political (Contd)

South Koreans Intensify Anti-U.S. Struggle, 5 pp.  
KOREAN, newspaper, Nodongja Sinmun, Pyongyang, 16 Jan 68, p. 4.  
JPRS 44,558

Leadership Role of Labor Class in Revolutionizing Society, 10 pp.  
KOREAN, newspaper, Nodongja Sinmun, Pyongyang, 20 Jan 68.  
JPRS 44,558

Party Policy Displays Vitality in Construction, by Kim Son-ok, 9 pp.  
KOREAN, newspaper, Nodong Sinmun, P'yongyang, 30 Jan 68, p. 3.  
JPRS 44,603

Peasant Organizations are Exorted to Support the Armed Forces, 7 pp.  
KOREAN, newspaper, Nongop Kulloja, 13 Jan 68, P'yongyang, p. 3.  
JPRS 44,603

The Second Day of the Negotiations of the Red Cross Societies of the Korean People's Democratic Republic and Japan.  
RUSSIAN, per, Central Korean Telegraph Agency, 31 Aug 1967.  
DIA LN 388-68

The Agency Prensa Latina Published the Statement of Comrade Kim IR Sen "Let Us Intensify the Anti-Imperialist and Anti-American Struggle".  
RUSSIAN, per, Central Korean Telegraph Agency, 31 Aug 1967.  
DIA LN 388-68

Responses to the Assertion of the Government of the Korean People's Democratic Republic of 21 August.  
RUSSIAN, per, Central Korean Telegraph Agency, 31 Aug 1967.  
DIA LN 388-68

Letters from a Country in Flames - Part I, by Aleksandr Servin, 12 pp.  
RUSSIAN, per, Qzonek, Jan 68, pp. 24-25.  
JPRS 44,469

Defenders of the Vietnamese Sky, by Monica Varnenska, 5 pp.  
RUSSIAN, per, Sovetskiy Voin, Feb 68, p. 43.  
JPRS 44,700

Chilean Correspondent's Interview With  
Nguyen Van Tien, by Jose Rodriguez Elizondo,  
6 pp.  
SPANISH, per, El Siglo, Santiago de Chile,  
21 and 28 Jan 68, p. 10.  
JPRS 44,469

Increase Local Party's Ability to  
Direct War, by Chu Van Tan, 15 pp.  
VIETNAMESE, per, Hoc Tap, Hanoi,  
Dec 67, pp. 21-31.  
JPRS 44,549

Labor Youth Education, by Vu Quang, 5 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 9 Jan 68,  
p. 3.  
JPRS 44,491

Continuously Destroying Enemy Communications,  
by Thanh Trung, 5 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 10 Jan 68,  
p. 3.  
JPRS 44,491

The Development of Revolutionary Heroism,  
by Chu Van Tan, 5 pp.  
VIETNAMESE, np, Nhan Dan, Hanoi, 17 Jan 68,  
p. 3.  
JPRS 44,491

Party Committee Leads Sedentary Living  
of Muong Te Mountain District, by  
Nguyen Tuan, 5 pp.  
VIETNAMESE, newspaper, Nhan-dan, Hanoi,  
18 Jan 68, p. 2.  
JPRS 44,610

Educate Women in the Working Class'  
Ideology, by Nguyen Thi Thap, 6 pp.  
VIETNAMESE, newspaper, Nhan-dan,  
Hanoi, 23 Jan 68, p. 2.  
JPRS 44,670

A Letter from the Party Central  
Committee, 7 pp.  
VIETNAMESE, newspaper, Nhan Dan,  
Hanoi, 26 Jan 68, pp. 1-2.  
JPRS 44,557

Under the Glorious Banner of the  
NFLSV, 6 pp.  
VIETNAMESE, per, Quan-Doi Nhan-Dan,  
Hanoi, 31 Dec 67, p. 4.  
JPRS 44,713

1967: A Difficult Year for the  
Johnson Clique, by Le Kim, 5 pp.  
VIETNAMESE, per, Quan-doi Nhan-Dan,  
Hanoi, 3 Jan 67, p. 4.  
JPRS 44,670

Liberation Army's Communique in 1967  
Victories, 5 pp.  
VIETNAMESE, newspaper, Quan Doi  
Nhan Dan, Hanoi, 21 Jan 68, pp. 1 and  
4.  
JPRS 44,583

Cambodian Diplomat Samreth Soth Visits the  
DRV, 5 pp.  
VIETNAMESE, per, Le Sangkum, Phnom Penh,  
No. 29, Dec 67, pp. 62-64.  
JPRS 44,491

Ideas on Studying the Socialist Revolu-  
tionary Policy, 26 pp.  
VIETNAMESE, per, Tuyen-huan, Hanoi,  
No. 12, Dec 67, pp. 1-14.  
JPRS 44,645

Raising Quality of Party Classes  
Urged, 9 pp.  
VIETNAMESE, per, Tuyen-huan, Hanoi,  
No. 12, Dec 67, pp. 29-32.  
JPRS 44,645

Merit Reporting, Achievement Move-  
ment Stepped Up, 21 pp.  
VIETNAMESE, per, Tuyen-huan, Hanoi,  
No. 12, Dec 67, pp. 33-42.  
JPRS 44,645

Far East  
Political (Contd)

Results of Hanoi Merit Reporting,  
Achievement Task, 9 pp.  
VIETNAMESE, per, Tuyen Huan, No. 12,  
Dec 67, pp. 43-46.  
JPRS 44,645

Table of Contents of 1967 Issues of  
Tuyen Huan, 6 pp.  
VIETNAMESE, per, Tuyen Huan, No. 1,  
Hanoi, Jan 68,  
JPRS 44,708

Implementation of the 1968 Govern-  
ment Plan, by Nguyen Van Dao, 12 pp.  
VIETNAMESE, per, Tuyen Huan, No. 1,  
Hanoi, Jan 68, pp. 2-10, 35.  
JPRS 44,708

Worker Mobilization and Labor Union  
Activities, 9 pp.  
VIETNAMESE, per, Tuyen Huan, No. 1,  
Hanoi, Jan 68, pp. 11-16.  
JPRS 44,708

Propaganda Problems Concerning Comm-  
unications and Transportation, 17 pp.  
VIETNAMESE, per, Tuyen Huan, No. 1,  
Hanoi, Jan 68, pp. 17-25.  
JPRS 44,708

The Ethnic Policy of the Party, by  
Le Quang Ba, 16 pp.  
VIETNAMESE, per, Tuyen Huan, No. 1,  
Hanoi, Jan 68, pp. 26-35.  
JPRS 44,708

Each of our Party Organizations Will  
Be a Revolutionary Example, 7 pp.  
VIETNAMESE, per, Tuyen Huan, No. 1,  
Hanoi, Jan 68, pp. 36-40.  
JPRS 44,708

South Vietnam Enters the 1967-1968  
Winter-Spring, by Son Hoa, 9 pp.  
VIETNAMESE, per, Tuyen Huan, No. 1,  
Hanoi, Jan 68, pp. 41-45.  
JPRS 44,708

Far East  
Military

Study of Communist China's Artillery  
No. 2, by Wu Yun-kuang, 6 pp.  
CHINESE, per, Fei-ch'ing Yen-Chiu,  
Sept 67, Taipei, pp. 67-70.  
JPRS 44,680

Guided Missiles  
CHINESE, per, Yu Hsien Tien, No 10, 1966,  
pp 15-16.  
\*ACSI J-4478  
ID 2204009668

Our Guerrilla Strategy, by G. Chaliand,  
7 pp.  
FRENCH, per, Partisans, Paris,  
No. 40, Jan-Feb 68, pp. 66-70.  
JPRS 44,700

AK Submachine Gun, 21 pp.  
INDONESIAN, bk, undated  
ACSI J-4011  
ID Incl to 2845044666

Defense Capability of North Korea  
Must be Stengthened, 7 pp.  
KOREAN, newspaper, Nodongja Sinmun,  
P'yongyang, 13 Jan 68, p. 1.  
JPRS 44,503

Sub Machine Gun A.K.  
INDONESIAN.  
\*ACIC J-4011

Local Military Activities in Haiphong, by  
Do Chinh, 6 pp.  
VIETNAMESE, per, Nhan-Dan, Hanoi, 9 Jan 68,  
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JPRS 44,491

VC Battle Results in Southern Central  
Vietnam, by Long Binh, 5 pp.  
VIETNAMESE, per, Nhan-dan, Hanoi, 11 Jan 68,  
p. 3.  
JPRS 44,491

Three Months of Continuous Advance on  
All Fronts, 8 pp.  
VIETNAMESE, newspaper, Guan-Doi,  
Nhan-Dan, 31 Dec 67, p. 2.  
JPRS 44,713

Far East  
Military (Contd)

How to Train Recruits, by P.H.L.,  
6 pp.  
VIETNAMESE, per, Quan-doi Nhan-  
dan, Hanoi, 3 Jan 68, p. 2.  
JPRS 44,670

The People's Air Defense, 7 pp.  
VIETNAMESE, per, Thoi Su Pho Thong,  
Hanoi, No. 13, July 67, pp. 34-39.  
JPRS 44,610

Sociological

Close Look at Asahan, 5 pp.  
INDONESIAN, newspaper, Kompas,  
Djakarta, 24 and 25 Jan 68, pp. 3,3.  
JPRS 44,580

Malaysia's Newspapers and Reporters,  
5 pp.  
INDONESIAN, newspaper, Kompas, Djakarta,  
25 Jan 68, pp. 1,3.  
JPRS 44,580

Language Development in North Korea  
Praised, by Kim Yong-ku and Chong  
Yong-ho, 12 pp.  
KOREAN, newspaper, Nodong Sinmun,  
31 Jan 68, pp. 3, 4.  
JPRS 44,603

Training Scientific and Technical  
Cadre, by To Huu, 17 pp.  
VIETNAMESE, per, Hoc Tap, Hanoi,  
No. 12, Dec 67, pp. 6-20, 88.  
JPRS 44,549

The University in War Time, by Pham  
Ke, 5 pp.  
VIETNAMESE, newspaper, Nhan Dan,  
Hanoi, 6 Dec 67, p. 2.  
JPRS 44,583

Emphasis on Equality Between Men and  
Women, by Ho Thi Chi, 5 pp.  
VIETNAMESE, newspaper, Nhan Dan,  
Hanoi, 15 Jan 68, p. 2.  
JPRS 44,501

Far East  
Sociological (Contd)

Writers and Artists Under the Banner  
of the Party, 5 pp.  
VIETNAMESE, newspaper, Nhan Dan, Hanoi,  
26 Jan 68, pp. 1-2.  
JPRS 44,557

Primary Targets for Education and Art,  
by Deng Thuc Mai, 10 pp.  
VIETNAMESE, newspaper, Nhan-dan,  
Hanoi, 27 Jan 68, p. 3.  
JPRS 44,610

Help Women to Surmount Difficulties,  
Develop Their Abilities and Progress, 7 pp.  
VIETNAMESE, per, Thoi Su Pho Thong, Hanoi,  
16 Aug 67, pp. 45-53.  
JPRS 44,491

District Cadres Urged to Study DRV's  
Characteristics, by Nam Hong, 31 pp.  
VIETNAMESE, per, Tuyen-huan, Hanoi,  
No. 12, Dec 67, pp. 15-28.  
JPRS 44,645

Biographic

Biographic Information, 5 pp.  
FRENCH, per, Le Sangkum, Phnom Penh,  
No. 28, Nov 67, pp. 74-75.  
JPRS 44,580

LATIN AMERICA

Economic

The Amazon Demands A Brazilian Solution for a  
National Problem.  
PORTUGUESE, per, Amazonia Quer Solucao Brasileira  
Para Problema Nacional, Sept 1967, pp 10-13; 18-25.  
DIA LN 396-68

Latin America  
Economic (Contd)

Where is Private Enterprise Headed?,  
by Gregorio Eguiguren, 11 pp.  
SPANISH, per, Ercilla, Santiago,  
31 Jan 68 and 7 Feb 68, pp. 8-9 of  
each issue.  
JPRS 44,712

Labor Ministry Issues Several  
Resolutions, 10 pp.  
SPANISH, journal, Gaceta Oficial,  
Havana, 30 Dec 67, pp. 87-92.  
JPRS 44,712

Plate River Basin Organization  
Established, 5 pp.  
SPANISH, newspaper, La Manana,  
Montevideo, 3 Feb 68, p. 3.  
JPRS 44,606

Political

Guevara Myth in Latin America Discussed,  
16 pp.  
FRENCH, per, Democratique Nouvelle, Paris,  
Dec 67, pp. 29-40.  
JPRS 44,495

Havana Congress Denounces US Cultural  
Penetration, by Jean-Pierre Gorin, 5 pp.  
FRENCH, newspaper, Le Monde, Paris, 26 Jan,  
1968, p. 5.  
JPRS 44,429

Hector Bejar's Analysis of the Guerrilla  
Movement, by Hector Bejar, 5 pp.  
ITALIAN, newspaper, Bandiera Rossa, Rome,  
15 Jan 68, p. 3.  
JPRS 44,429

Italian Says Cuba's Castro in  
Difficult Position, by Gianni Corbi,  
6 pp.  
ITALIAN, per, L'Espresso, 27 Feb  
68, Rome, pp. 16-17.  
JPRS 44,650

Latin America  
Political (Contd)

Guerrilla Warfare and Persecution  
in Peru, 7 pp.  
ITALIAN, journal, La Sinistra, Rome,  
10 Feb 68.  
JPRS 44,712

Pole Recounts Visit to Oriente,  
Cuba, by Andrzej Dambicz, 8 pp.  
POLISH, per, Poznaj Swiat, Warsaw,  
Sept 67, pp. 12-16.  
JPRS 44,650

Several Decrees of the Brazilian Government,  
36 pp.  
PORTUGUESE, per, Diario Oficial, Sect 1, Pt 1,  
June 1967, pp 6145-6152.  
DIA LN 437-68

Guerrilla Intellectuals Killed In Action  
Cited, by Capt. Carlos Chain, 7 pp.  
SPANISH, per, Bohemia, Havana, 19 Jan 68,  
pp. 50-51.  
JPRS 44,429

Cambodia Chooses to Resist, by Joaquin  
Crespo, 7 pp.  
SPANISH, per, Bohemia, Havana, 19 Jan 68,  
pp. 70-71.  
JPRS 44,429

Uruguay Joins US Satellite System,  
by Carlos Maria Gutierrez, 10 pp.  
SPANISH, per, Bohemia, Havana,  
2 Feb 68, pp. 15-18.  
JPRS 44,650

Copei Candidate Predicts Electoral Victory,  
by Luis Eloy Gomez, 7 pp.  
SPANISH, per, Elite, Caracas, 20 Jan 68,  
pp. 30-33.  
JPRS 44,429

Venezuela Ten Years After the Dictatorship,  
by Jose Cayuela, 13 pp.  
SPANISH, per, Elite, Caracas, 27 Jan 68,  
pp. 22-29.  
JPRS 44,495



Latin America  
Political (Contd)

The AD Convention, by Benjamin Alcala,  
10 pp.  
SPANISH, per, Elite, Caracas, No. 2210,  
3 Feb 68, pp. 19-22.  
JPRS 44,495

History of Argentine Communist Party  
Detailed, by Jean Paul Alvarado  
Faure, 29 pp.  
SPANISH, per, Este y Oeste, Paris/  
Caracas, Jan 68, pp. 1-18.  
JPRS 44,559

Venezuelan Guerrillas Trained in  
Cuba, 10 pp.  
SPANISH, per, Este y Oeste, Paris/  
Caracas, Jan 68, pp. 19-28.  
JPRS 44,559

Interview With the PAP Secretary  
General, by Carlos Hurtado Gomez,  
5 pp.  
SPANISH, newspaper, Expreso, Lima,  
1 Feb 68, p. 2.  
JPRS 44,650

CP Dilatory Policy Annoys Rebel  
Armed Forces, 10 pp.  
SPANISH, newspaper, Granma,  
Havana, 12 Feb 68, p. 2.  
JPRS 44,650

Political Prisoners in Paraguay,  
by Eduardo Galeano, 5 pp.  
SPANISH, newspaper, Izquierda,  
Montevideo, 9 Feb 68, p. 10.  
JPRS 44,606

Interview with Jose Cardoso, 6 pp.  
SPANISH, np, Izquierda, Montevideo, 9 Feb 68,  
pp 15 and 16.  
JPRS 44,606

A Cuban Views Uruguayan Political  
Developments, by Carlos Munoz, 5 pp.  
SPANISH, np, Juventud Rebelde,  
Havana, 9 Jan 68, p. 5.  
JPRS 44,509

Latin America  
Political (Contd)

Cuban Youth Urged to Do Greater Work,  
by Armando Hart, 15 pp.  
SPANISH, newspaper, Juventud Rebelde,  
Havana, 24 Jan 68, pp. 4-5.  
JPRS 44,506

Threat of Invasion, 6 pp.  
SPANISH, np, Libertad, San Jose,  
10 Feb 68, p. 5.  
JPRS 44,712

Uruguayan Lauds Cuban Revolution, by  
Hugo R. Alfaro, 8 pp.  
SPANISH, per, Marcha, Montevideo,  
16 Feb 68, pp. 20-21.  
JPRS 44,650

Jaime Castillo Discusses Ten Contro-  
versial Issues, 18 pp.  
SPANISH, per, La Nacion, Santiago,  
28 Jan 68, pp. 26-27.  
JPRS 44,606

Observations on the Policy of Jaime  
Castillo, by J. Rogers Sotomayor,  
6 pp.  
SPANISH, np, PBC, Santiago, 9 Feb 68,  
pp. 7-8.  
JPRS 44,712

Chilean Comments on KGB Use of Mis-  
information, 8 pp.  
SPANISH, np, PBC, Santiago,  
10 Feb 68, pp. 12,13,14.  
JPRS 44,712

El Popular Celebrates Eleventh Anniversary,  
6 pp.  
SPANISH, np, El Popular, Montevideo,  
1 Feb 68.  
JPRS 44,495

Arismandi Speech to Uruguayan Com-  
munist Youth Union, by Rodney  
Arismandi, 34 pp.  
SPANISH, newspaper, El Popular,  
2 Feb 68, pp. 5,6, and 7.  
JPRS 44,559

Latin America  
Political (Contd)

Interview With Methodist Church Leader,  
5 pp.  
SPANISH, np, El Popular, Montevideo,  
2 Feb 68, pp. 15 and 16.  
JPRS 44,495

Arismendi Speech to Port Workers,  
9 pp.  
SPANISH, newspaper, El Popular,  
Montevideo, 5 Feb 68, p. 12.  
JPRS 44,606

Peru's Historical Relations With  
Chile, by Capt. Alfonso Ortiz Lores,  
6 pp.  
SPANISH, per, Revista Militar del  
Peru, Lima, Nov/Dec 67, pp. 45-50.  
JPRS 44,509

Potentiality of the State and the  
Military, by Lt.Col. Milton Delfin  
Cataldi, 6 pp.  
SPANISH, per, Revista Militar del  
Peru, Lima, Nov/Dec 67, pp. 110-  
114.  
JPRS 44,509

Latin American Students in Moscow  
University, by Jacobo Zabludovsky,  
6 pp.  
SPANISH, per, Siempre!, Mexico City,  
3 Jan 68, pp. 32-33, 70.  
JPRS 44,509

An Experiment in Guerrilla Warfare, by  
Regis Debray, 21 pp.  
SPANISH, per, Siempre, Mexico City,  
10 Jan 1968, pp. 7-12.  
JPRS 44,509

University Democracy -- A Farce in Chile, by  
Alfredo Nazzari, 7 pp.  
SPANISH, per, El Siglo, Santiago, 25 Jan 68,  
p. 7.  
JPRS 44,495

Mexican Communist Analysis of Debray's  
Theses, by Gerardo Unzueta, 13 pp.  
SPANISH, per, El Siglo, Santiago, 4 Feb 68,  
pp. 11-14.  
JPRS 44,495

Latin America  
Political (Contd)

Unity Called for on CUF 15th  
Anniversary, 6 pp.  
SPANISH, newspaper, El Siglo,  
Santiago de Chile, 12 Feb 68, p. 7.  
JPRS 44,650

Labor Union Leaders Express Views  
on Unity, 8 pp.  
SPANISH, newspaper, El Siglo,  
Santiago de Chile, 12 Feb 68, p. 8.  
JPRS 44,650

Christian Democratic Party President Inter-  
viewed, by Rene Olivares, 6 pp.  
SPANISH, per, Tercera de la Hora, Santiago,  
3 Feb 68, pp. 12-13.  
JPRS 44,495

The Presidential Candidates, by Humberto  
De Castro, 7 pp.  
SPANISH, newspaper, El Tiempo, Bogota,  
26 Jan 68, p. 5 and 29.  
JPRS 44,429

Military

Strategy of Urban Warfare, by Abraham Guillen.  
SPANISH, bk, Estrategia de la Guerrilla Urbana,  
1966, 133 pp.  
\*ACSI J-4261  
ID 2204003068

Politics and Military Strategy in  
Anti-Subservice Warfare, by  
Brig.Gen. Edgardo Mercado Jarrin,  
32 pp.  
SPANISH, per, Revista Militar del  
Peru, Lima, Nov/Dec 67, pp. 4-33.  
JPRS 44,509

Gunnery Practice for Cuban Missile  
Launches, by Lisanka, 5 pp.  
SPANISH, per, Verde Olivo, Havana,  
18 Feb 68, pp. 36-43.  
JPRS 44,712

Latin America  
Sociological

Periwig Indians of Amazonia Continue Isolation, by Roberto Gueudeville, 6 pp.  
PORTUGUESE, per, O Cruzeiro, Rio de Janeiro, 6 Jan 68, pp. 38-43.  
JPRS 44,509

Novel Role of the Latin American Church, by Jose Manuel Quijano, 9 pp.  
SPANISH, per, Marcha, Montevideo, 16 Feb 68, pp. 8-9.  
JPRS 44,650

Studies on Race Relations in Brazil, by Octavio Ianni, 33 pp.  
PORTUGUESE, review, Revista do Museu Paulista, Vol. XVI, 1965-1966 Annual, pp. 289-319.  
JPRS 44,559

North America

Economic

European Space Market from the American Point of View, by C. Burns.  
GERMAN, per, Flugwelt, June 1967, pp 418-426.  
DIA LH 13-68

World Wide

Political

Modern Distortions of the International Significance of the October Revolution, by Georgi Yordanov, 10 pp.  
BULGARIAN, per, Filosofska Misul, No. 6, Sofia, Nov/Dec 67, pp. 16-24.  
JPRS 44,534

International Congress of Fraternal Parties Discussed, by Etienne Fajon, 6 pp.  
FRENCH, journal, Cahiers du Communisme, Paris, Vol. 44, No. 1, Jan 68, pp. 4-10.  
JPRS 44,600

World Wide  
Political (Contd)

International Relations and the Struggle to Achieve Peace, by George Macovescu, 16 pp.  
RUMANIAN, per, Lupta de Clasa, Bucharest, No. 12, Dec 67, pp. 82-94.  
JPRS 44,648

SCIENTIFIC

Aeronautics

History of Aviation and Cosmonautics, Vol. I., by N. D. Anoschenko.  
RUSSIAN, bk, Academy of Sciences USSR, Soviet National Society of Historians of Natural Science and Technology, Moscow, 1964, 50 pp.  
NASA TT F-11,427

History of Aviation and Cosmonautics, Vol. II., by N. D. Anoschenko.  
RUSSIAN, bk, Academy of Sciences USSR, Soviet National Society of Historians of Natural Science and Technology, Moscow, 1964, pp 56-68.  
NASA TT F-11,428

History of Aviation and Cosmonautics, Vol. III., by N. D. Anoshchenko.  
RUSSIAN, bk, Academy of Sciences USSR, Soviet National Society of Historians of Natural Science and Technology, Moscow, 1965, 53 pp.  
NASA TT F-11,429

History of Aviation and Cosmonautics, Vol. IV., by N. D. Anoshchenko.  
RUSSIAN, bk, Academy of Sciences USSR, Soviet National Society of Historians of Natural Science and Technology, Moscow, 1965, 66 pp.  
NASA TT F-11,430

Flow Formation Around a Model in a Shock Tube, by M.P. Syshchikova, 29 pp.  
RUSSIAN, book, Aerofizicheskiye Issledovaniya Sverkhzvukovykh Teleniy, Moscow-Leningrad, Nauka Publishing House, 1967, pp. 7-13.  
JPRS 44,615

Equipment and Methods Used in Flight Testing Aircraft, by A. V. Pavlov.  
RUSSIAN, bk, Apparatura i Metody Issledovaniya Pri Letnykh Ispraniyakh Samoletov, 1967, 215 pp.  
\*PTD-T-24-74-68

Scientific  
Aeronautics (Contd)

Deformation of Solid Fuel Rocket Engine Grains with an End Restriction Under Axial Loadings, by V. P. Burnistrov.  
RUSSIAN, per, IVUZ, Aviatcionnaya tekhnika, No 1, 1967, pp 93-97.  
\*FTD-HT-23-265-68

Bioengineering Problems of Habitability of Spacecraft and Planetary Stations, by B. A. Adamovich & Yu. G. Mefedov.  
RUSSIAN, rpt, Report Presented at the Eighteenth Congress of the International Astronautical Federation, Belgrade, 25-30 Sept 1967, 8 pp.  
NASA TT F-11,398

Some Results of an Experimental Investigation of Plane Compressor Cascades with Small Aspect Blades, by A. Ye. Polyakov & Yu. V. Stepanov.  
RUSSIAN, rpt, Samoletostroyeniye i Tekhnika Vozdushnogo Flota, 1966, pp 28-31.  
\*NASA TT F-11,438

Aviation Turbogenerator, by L. S. Arinushkin & V. I. Abramovich.  
RUSSIAN, Patent No 179131, Class 46.  
\*FTD-HT-23-273-68A

Propeller Balancing During Operation, by J. Statecny.  
CZECH, per, Zpravodaj VZLU, No 6, 1966, pp 33-38.  
\*NASA TT F-11,411

A Parachute with Automatic Air Pressure Release, by Kamila Ferusova, Klatovy.  
CZECH, Patent No 70724.  
ACSI J-4387  
ID 2204006868

Optimization of Flight Trajectories by Iterative Application of the Maximum Principle (Min-H-Method), by E. D. Dickmanns.  
GERMAN, rpt, Annual Meeting of WGLR/DGRR, Karlsruhe, 1967, 25 pp.  
\*NASA TT F-11,459

Series of Articles on Airways Equipment.  
JAPANESE, per, Toshiba Review, No 4, 1967, pp 420-480.  
\*ACSI J-4504  
ID 2253016267

Scientific  
Agriculture

The Timberline, Krummholz and Forests of Prostrate Trees in the High-Mountains Zone of the Soviet Carpathians, by M. I. Koets, 16 pp.  
RUSSIAN, per, Botanicheskii Zhurnal, Vol 47, No 7, 1962, pp 957-969.  
CFSTI TT 67-51308

Effect of Seed Position in the Soil on the Formation of the Root System and Stem in Persian Walnut Seedlings, by M. M. Tynko, 10 pp.  
RUSSIAN, per, Botanicheskii Zhurnal, Vol 48, No 8, 1963, pp 1121-1130.  
CFSTI TT 67-51313

For Acceleration of the Use of Chemicals in Agriculture.  
RUSSIAN, per, Central Korean Telegraph Agency, 31 Aug 1967,  
DIA LH 388-68

Plans for the Further Development of Agriculture, by N. Gusev, 16 pp.  
RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva, No. 12, Moscow, Dec 67, pp. 1-11.  
JPRS 44,444

Intensification of Socialist Agriculture, by Prof. G. Kotov, 20 pp.  
RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva, No. 12, Moscow, Dec 67, pp. 21-35.  
JPRS 44,444

Perfecting the Specialization of Production, by I. Bondarenko, 13 pp.  
RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva, No. 12, Moscow, Dec 67, pp. 53-61.  
JPRS 44,444

Feed Production Reserves Evaluated, by A. Zalevskiy, 11 pp.  
RUSSIAN, per, Ekonomika Sel'skogo Khozyaystva, No. 12, Moscow, Dec 67, pp. 61-68.  
JPRS 44,473

Quality Determination of Seeds, by V. Ya. Lobanov.  
RUSSIAN, bk, Opredelenie Posevnykh Kachestv Semyan, 1964.  
CFSTI TT-67-51216

Preparation of Tree and Shrub Seed for Sowing, by Z. K. Shumilina.  
RUSSIAN, bk, Podgotovka Posevu Semyan Drevesnykh i Kustarnikovykh Porod, 1949.  
CFSTI TT 67-51300

Scientific  
Agriculture (Contd)

Breeding and Breeds of Cattle, Cattle Husbandry,  
by M. M. Burlakov and D. I. Startsev.  
RUSSIAN, bk, Porozhdeniye i Porody Krupnogo  
Rozotogo Skota, Skotovodstvo, Vol 1, 1961.  
CFSTI TT 66-51142/1

Technology of Grain Processing and Provender  
Milling, by Ya. M. Kupits, 544 pp.  
RUSSIAN, bk, Obshchiki i Obshchaya Pechiya  
Elva Vysshikh Obshchikh Zavedeni, 1963.  
CFSTI TT 67-51273

Control of Heredity in Agricultural Crops, by  
I. S. Varuntayan, 535 pp.  
RUSSIAN, bk, Upravleniye Nasledstvennost'yu  
Sel'skokhozyaystvennykh Rasteni, 1963.  
CFSTI TT 66-51113

Laws for the Application of Machine  
Technology and Their Use in Agri-  
culture, by L.A. Bulochnikova, 15 pp.  
RUSSIAN, per, Vestnik Moskovskogo  
Universita, Seriya VII - Ekonomika,  
Moscow, No. 1, Jan-Feb 68, pp. 46-56.  
JPRS 44,679

Mycoflora of Field-Protective Forest Plantations  
of the East Bank Dnieper Steppe and Forest-Steppe  
of the Ukrainian SSR, by S. F. Korochkovskii.  
UKRAINIAN, per, Botanichnyi Zhurnal AN U.S.S.R.,  
Vol 10, No 4, 1953, pp 57-65.  
CFSTI TT 67-51319

The Development of Agriculture in  
Niger, 8 pp.  
FRENCH, quarterly, Nations Nouvelles,  
No. 14, Nile Series, Paris, Dec 67,  
pp. 21-26.  
JPRS 44,663

Agriculture in North Vietnam, by  
Nguyen Zuan Lai, 22 pp.  
FRENCH, per, Partisans, Paris,  
Jan-Feb 68, pp. 32-48.  
JPRS 44,700

Supply of Agricultural Spare Parts  
Improves, by H. Engelhardt, 6 pp.  
GERMAN, monthly, Deutsche Agrar-  
technik, Vol. 18, No. 2, East Berlin,  
Feb 68, pp. 49-50  
JPRS 44,573

Scientific  
Agriculture (Contd)

Crop and Weather Report, December 1967,  
by Dr. D. Krumbiegel, 8 pp.  
GERMAN, per, Feldwirtschaft,  
No. 2, Feb 68, pp. 95-96.  
JPRS 44,652

Establishment of Contractual Purchase  
Prices for Improved Seed and Elite  
Seed Potatoes, 7 pp.  
HUNGARIAN, journal, Mazogazdasagi  
es Eltelmesugyi Ertesito, Budapest,  
30 Dec 67, pp. 1113-1115.  
JPRS 44,530

Agricultural Produce Sales Contracts,  
by Jeno Fock, 9 pp.  
HUNGARIAN, Journal, Mazogazdasagi  
es Eltelmesugyi Ertesito, No. 3,  
Budapest, 2 Feb 68, pp. 126-130.  
JPRS 44,666

Agricultural Development in Southeast Asia,  
JAPANESE, bk, pp 1-249.  
\*ACSI J-4464  
ID Incl to 2253033567

Studies on Forecasting Rice Blast with Special  
Reference to Experimental Forecasting.  
JAPANESE, rpt, IR 222183666, pp 1-68, 73-82.  
\*ACSI J-4578  
ID Incl to IR 222183666

Resistance of Rice Varieties to Bacterial  
Leaf Blight.  
JAPANESE, rpt, Annual Report of National  
Institute of Agricultural Sciences, 1962,  
pp 51-54.  
\*ACSI J-4486  
ID Incl to 2253030567

Causes and Mechanism of the Outbreak of Rice  
Strife Disease, or "Akagars"  
JAPANESE, rpt, Annual Report of National  
Institute of Agricultural Sciences, 1964,  
pp 40-44.  
\*ACSI J-4485  
ID Incl to 2253030567

Scientific  
Agriculture (Contd)

Actual Conditions of the Outbreak of Grass Diseases.  
JAPANESE, rpt, Annual Report of National Institute of Agricultural Sciences, 1964, pp 44-48.  
\*ACSI J-4485  
ID Incl to 2253030567

Studies of Rice Plant Striped Leaf Blight (VIII); Preference for the Rice Varieties, Sucking Portion of Host, Virus Acquisition in *Laodelphax striatellus* (Fallen), by Y. Sonku & Y. Sakurai. JAPANESE, per, Chugoku Agricultural Research, No 32, 1965, pp 22-24.  
ACSI J-4347  
ID 2253030967

Superiority of the New Agricultural Leadership System, by Kim T'ae Ha, 10 pp.  
KOREAN, newspaper, Minju Choson, Pyongyang, 22 Dec 67, pp. 2-3.  
JPRS 44,558

Responsibilities of Cooperative Farmers, by Ho Ch'ang-nyon, 6 pp.  
KOREAN, newspaper, Nodong Sinmun, Pyongyang, 12 Jan 68, p. 2.  
JPRS 44,558

The Effect of Trace Elements on Corn Seeds, by S. Stasauskaite & M. Holmanaitis. LITHUANIAN, bk, Lietuvos TSR Mokslu Akademijos Darbai, Serija D, 4 (20), 1959.  
CFSTI TT 67-51329

A Critical Survey of Varieties and Hybrids of *Populus alba* L. and Studies on this Species in the Vistula River Valley, by Wladyslaw Bugala. POLISH, per, Arboretum Kornickie, Vol 5, 1960, pp 5-128.  
CFSTI TT 66-57018

Fixed Assets in Agriculture, by John Krzywonos, 14 pp.  
POLISH, semi-monthly, Nowe Rolnictwo, No. 23, Warsaw, 1-15 Dec 67, pp. 26-29.  
JPRS 44,573

Scientific  
Agriculture (Contd)

Present and Future Role of Rye Production in Poland, by W. Dobrowolski, 8 pp.  
POLISH, semimonthly, Nowe Rolnictwo, No. 1, Warsaw, 1-15 January 1968, pp. 20-22.  
JPRS 44,573

Studies and Observations on *Armillaria mellea* (Vahl.) Quel. as the Cause of Mass Dying-Off of Forest Stands, by Zenon Twarowski and Irena Twarowska.  
POLISH, per, Prace Instytutu Badawczego Leśnictwa, No 192, 1959, pp 3-63.  
CFSTI TT 66-57031

A Method of Determining Translucence of the Stand-Canopy, by Stanislaw Matusz.  
POLISH, per, Prace Instytutu Badawczego Leśnictwa, No 202, 1960, pp 3-20.  
CFSTI TT 66-57027

Studies on the Mycotrophy of Plant Associations of the "Tabors Pine" Reservation in Tabors, by T. Dominik and H. Wojciechowska.  
POLISH, per, Prace Instytutu Badawczego Leśnictwa, No 228, 1961, pp 39-55.  
CFSTI TT 67-56024

*Suillus Grevillei* (Klotzsch) Sing and *Suillus aeruginascens* (Secr.) Snell in Biatowieza Botanical Park and in the Managed Part of Biatowieza Forest, by Roman Pachlewski.  
POLISH, per, Prace Instytutu Badawczego Leśnictwa, No 261, 1963, pp 103-117.  
CFSTI TT 66-57024

Principal Directions Regarding the Improvement of Production and Work Organization in Machine and Tractor Stations, by C. Chirita, 22 pp.  
RUMANIAN, journal, Mecanizarea si Electricarea Agriculturii, No. 12, Dec 67, pp. 3-17.  
JPRS 44,467

The Influence of Increased Mechanization on the Profitability of State Farms, by Dr. Eugen Jianu, 11 pp.  
RUMANIAN, journal, Mecanizarea si Electricarea Agriculturii, No. 12, Dec 67, pp. 18-24.  
JPRS 44,467

Scientific  
Agriculture (Contd)

The Forestry Research Institute Reports on Work in Silviculture, by G. Marcu, 11 pp. RUMANIAN, monthly, Revista Padurilor, Vol. 82, No. 12, Bucharest, Dec 67, pp. 621-625. JPRS 44,490

The Problems of the Agronomic Service for the Application of Science to Agricultural Production (1), by Franjo Satovic, 20 pp. SERBO-CROATIAN, per, Agronomski Glasnik, Zagreb, No. 10, Oct 67, pp. 835-850. JPRS 44,652

An Analysis of the Business Success of Agricultural Enterprises in the Vojvodina, by Dr. Bogdan Rajkov and Jovan Kolarski, 11 pp. SERBO-CROATIAN, journal, Ekonomika Poljoprivrede, No. 1-2, Belgrade, Jan-Feb 68, pp. 9-19. JPRS 44,530

Results of Production Cooperation in Field Cropping, by M. Petrovic, 12 pp. SERBO-CROATIAN, journal, Ekonomika Poljoprivrede, No. 1-2, Belgrade, Jan-Feb 68, pp. 21-30. JPRS 44,530

Owners of Agricultural Land Who Are Engaged Outside of Agriculture (Views and Opinions of Private Agricultural Producers, Experts and Socio-Political Figures), by Borislav J. Dinkovic, 8 pp. SERBO-CROATIAN, journal, Ekonomika Poljoprivrede, No. 1-2, Belgrade, Jan-Feb 68, pp. 43-48. JPRS 44,530

Agriculture in the First Two Years of the Economic Reform, by Ugljesa Pavlovic, 8 pp. SERBO-CROATIAN, journal, Ekonomika Poljoprivrede, No. 1-2, Belgrade, Jan-Feb 68, pp. 123-127. JPRS 44,530

Scientific  
Agriculture (Contd)

Self-Management in Agricultural Cooperatives, by Nikola Knesic, 10 pp. SERBO-CROATIAN, per, Glasnik Poljoprivrede i Zadrugarstva, Vol 17, No. 1, Belgrade, Jan 68, pp. 3-10. JPRS 44,467

Occurrence of Rust on the Aleppo Pine in Istria, by J. Kispatic. CROATIAN, per, Sumarski List, 1/3, 1959, pp 26-38. CFSTI TT 67-51309

Producing Seedlings from Unripe Forest Seed, by Ivan Soljank. SERBO-CROATIAN, per, Sumarstvo, Vol 14, No 5-6, 1961, pp 161-167. CFSTI TT 67-58012

Agricultural Plan of Banao, by Rafael Sanchez Lalebret, 7 pp. SPANISH, per, Bohemia, Havana, No. 5, 2 Feb 68, pp. 4-11. JPRS 44,606

Experiences in Increasing Corn Yields in the Mountainous Region of Viet Bac, by Nguyen Mong, 16 pp. VIETNAMESE, per, Khoa Ky Thuat Nong Nghiep, Hanoi, No. 8, Aug 67, pp. 282-298. JPRS 44,670

Technological Revolution in Stock Breeding, 7 pp. VIETNAMESE, newspaper, Nhan Dan, Hanoi, 19 Nov 67, p. 2. JPRS 44,501

Review of Agriculture in North Vietnam in 1967, by Phan Quang, 7 pp. VIETNAMESE, newspaper, Nhan Dan, Hanoi, 7 Jan 68, p. 2. JPRS 44,523

Cultivation Organization Suitably Arranged, by Phan Quang, 7 pp. VIETNAMESE, newspaper, Nhan Dan, 8 Jan 68, p. 2. JPRS 44,523

Scientific  
Agriculture (Contd)

Fertilizer Production for 1968-1970, 5 pp.  
VIETNAMESE, per, Nhan-Dan, Hanoi,  
9 Jan 68, p. 2.  
JPRS 44,491

Subsidiary Food Crops, by Phan Quang, 7 pp.  
VIETNAMESE, per, Nhan Dan, Hanoi, 10 Jan 68,  
p. 2.  
JPRS 44,491

Winter-Spring Pisciculture, by Nguyen  
Trong Tinh, 5 pp.  
VIETNAMESE, per, Nhan Dan, Hanoi, 12 Jan 68,  
p. 2.  
JPRS 44,469

Agricultural Victory in Nam Ha Province,  
by Bui Huy Dap, 5 pp.  
VIETNAMESE, per, Nhan Dan, Hanoi, 20 Jan 68,  
p. 2.  
JPRS 44,491

Development of Livestock Raising in Balance  
With Crops, by Nguyen Chuong, 6 pp.  
VIETNAMESE, per, Thoi Su Pho Thong, Hanoi,  
No. 21, Nov 67, pp. 6-11.  
JPRS 44,491

Spring Rice, A Rice Species With  
Good Prospects, by Duong Hong Hien,  
5 pp.  
VIETNAMESE, per, To Quoc, Hanoi,  
Oct 67, pp. 26-29.  
JPRS 44,523

Land Management Engineer Describes  
Her Career, by Nguyen Thi Dan, 5 pp.  
VIETNAMESE, per, To Quoc, Hanoi,  
Oct 67, pp. 26-29.  
JPRS 44,700

Scientific  
Astronomy & Astrophysics

Atlas of the Reverse Side of the Moon, Part II,  
by B. M. Antonov.  
RUSSIAN, bk, Nauka Press, Moscow, 1967, 236 pp.  
NASA TT F-514

Observations of Scattered Ly $\alpha$ -Emission in  
the Vicinity of the Earth and in the Inter-  
planetary Medium, by V. G. Kurt, 12 pp.  
RUSSIAN, per, Kosmicheskiye Issledovaniya,  
Vol 5, No 6, 1967, pp 911-920. P910058968  
Sci & Tech Info Facility  
ST-OA-SP-10669

On the Determination of the Orbital Elements  
of a Satellite from the Position and Velocity  
Components, by M. Bursa.  
CZECH, per, Studia Geophysica et Geodaetica,  
Vol 10, No 4, 1966, pp 401-410.  
ACIC TC-1339

Terrestrial and Satellite Geodesy, by  
J. Kovalevsky & F. Barlier.  
FRENCH, per, Space Science Reviews, Vol 7,  
1967, pp 69-134.  
Dept of Navy/APL/JHU T-2096

Astronomy and Space Flight, by J. Hoppe.  
GERMAN, rpt, Astronomie und Raumfahrt, No 4/5,  
1967, pp 93-172.  
\*FTD-HT-23-179-68

Comets in the Solar Wind, by B. Brosowski &  
H. U. Schmidt.  
GERMAN, rpt, Report MPI-PAE/Astro 1/67 of the  
Max-Planck Institut for Physics and Astrophysics,  
Munich, 1967, 11 pp.  
\*NASA TT F-11,416

The Scintillation of Stars, by H. Elsasser.  
GERMAN, per, Naturwissenschaften, Vol 47, 1960,  
pp 6-10. P911064768-V  
AEC-SC-T-68-1500

Atmospheric Sciences

Climates in Africa (Legends & Headings for Graphs  
and Tables & Certain Captions Only), by  
A. N. Lebedeva, 101 pp.  
RUSSIAN, per, 1967.  
DIA LN 324-68



Scientific  
Atmospheric Sciences (contd)

Clear Air Turbulence, by I. G. Pchelko.  
RUSSIAN, bk, Gidrometeorologicheskii Ordena  
Leninga Nauchno-Issledovatel'skiy Tsentr 858R,  
1967, pp 3-15.  
\*FTD-MT-24-66-68

Radiation Fields of the Planet Earth, by K. Ya  
Kondrat'yev.  
RUSSIAN, bk, Pole Iskucheniya Zemli Kak Planety,  
1967, 316 pp.  
\*FTD-MT-24-60-68

Wave Propagation Through a Turbulent Atmosphere,  
by V. I. Tatarskiy.  
RUSSIAN, rpt, Rasprostraneniye Voln V Turbulentnoy  
Atmosfere, 1967, pp 1-38-540.  
\*ACSI J-4598  
ID 2204013168

Daily and Yearly Trend of the Probability of  
Visibility Below 10 km, by Ye. N. Dovgyallo.  
RUSSIAN, per, Trudy Leningrad. Glavnaya  
geofizicheskaya observatoriya. Aktinometriya,  
atmosfera optika i reonometriya, No 184,  
1966, pp 44-47.  
\*FTD-MT-23-269-68

Determining Surface Temperature and Cloud  
Temperature with Meteorological Earth Satellites,  
by K. Ya. Kondrat'yev & Ye. P. Novosel'tsev.  
RUSSIAN, per, Trudy Leningrad. Glavnaya  
geofizicheskaya observatoriya. Problemy sputnikovoy  
meteorologii, No 196, 1966, pp 3-23.  
\*FTD-MT-24-33-68

Work Results of Liquid Precipitation Measure-  
ment based on Radar, by A. M. Dimakyan and V.  
N. Zotimov, 12 pp.  
RUSSIAN, per, Gosudarstvennyy Gidrologicheskiiy  
Institut. Trudy, No 130, 1965, pp 122-131.  
FI00051668-V  
FTD-MT-24-171-67

Introduction of a Model for the Structure and  
Movements of the Atmosphere at an Altitude of  
from 85 km to 110 km, by J. E. Elamont and J.  
Barat, 57 pp.  
FRENCH, per, Annales de Geophysique, Vol 23, No  
2, 1967, pp 173-195.  
F911045268  
AEC-SC-T-67-0957

Scientific  
Atmospheric Sciences (Contd)

Meteorological Conditions for the Use of  
Silver Iodide in the Modification of Clouds,  
by H. G. Muller and A. Jaffe, 52 pp.  
GERMAN, rpt, 65-39, September 1965 [Deutsche  
Luft- und Raumfahrt Forschungsbericht]  
P500049468-V  
Dept of Navy NIC Tr 2537

"Summer Wind" A Program for the Measurement  
of Meteorological Data for Use in Ballistics  
Part I - Evaluation Program, by I. Schmidt,  
21 pp.  
GERMAN, bk, Ein Programm zur Messung Meteorolo-  
gischer Daten Fuer Die Ballistik, Teil I Das  
Auswerteprogramm, 15 Feb 1967.  
ACSI J-2691  
ID 2204024667

Theory of Astronomical Scintillation, Part I,  
by H. Elsasser & H. Siedentopf.  
GERMAN, per, Zeitschrift fur Astrophysik, Vol 48,  
1959, pp 213-230.  
AEC-SC-T-68-1501 P911063768-V

Determination of Extinction in the Earth's Atmos-  
phere at Wavelengths of 20 and 3.2 CM, by F.  
Furstenberg, 21 pp.  
GERMAN, per, Zeitschrift fur Astrophysik, No 49,  
1960, pp 42-60.  
P911017168  
AEC-NRC-TT-1302

Meteorology For All, by Czesław Szczepinski.  
POLISH, bk, Meteorologia dla wszystkich, 1967.  
CFSTI TT 65-50313

Determination of Air Density on the Basis of  
Changes of the Orbital Elements of Artificial  
Earth Satellites.  
POLISH, per, Nablyudeniya iskusstvennykh  
sputnikov zemli, No 2, 1963, pp 58-63.  
\*FTD-MT-23-236-68

Some Notes Concerning the Oldest Meteorologic  
Observations at Torun on the Background of  
Contemporaneous Observations at Warsaw, by  
Ananiasz Rojecki.  
POLISH, per, Przegląd Geofizyczny, Vol 10 (19),  
No 2, 1965, pp 141-151.  
CFSTI TT 67-56102

Characteristics of Heavy Rains and Storms Over  
Poland in the Years 1956-1960, by  
Wladyslaw Taraszkiewicz.  
POLISH, per, Przegląd Geofizyczny, Vol 10 (18),  
No 3-4, 1965, pp 299-306.  
CFSTI TT 67-56108

Scientific  
Behavioral & Social Sciences

Some Basic Principles of the Design of Cognitive Learning Systems, by V. A. Yakubovich.  
RUSSIAN, rpt, Institut Avtomatiki i Telemekhaniki. Samobuchayushchiye Avtomaticheskiye Sistemy, 1966, pp 9-20.  
\*FTD-HT-23-174-68

The Problem of Learning, by M. M. Bongard.  
RUSSIAN, bk, Problemy Uznaniya, 1967, 320 pp.  
\*FTD-HT-23-194-68C

Simulation of Constant Features in Recognition, by V. A. Makhovin.  
RUSSIAN, rpt, Sb Probl Inzh Prikl L. Vyp. No 4, 1966, pp 206-215.  
\*FTD-HT-23-172-68

Cost and Efficiency Analysis in Iron and Steel Production, by N. P. Bannyi.  
RUSSIAN, bk, Tekhniko-ekonomicheskie raschety v chernoi metallurgii, 1962.  
CFSTI TT 66-51044

Integral-Type Memory System, by V. I. Perekatov.  
RUSSIAN, Patent No 189019 (1038260/26-24) Class 21a<sup>1</sup>, 37/04, 16 Nov 1965.  
\*FTD-HT-23-182-68

Problems of Manpower in the Community, 143 pp.  
FRENCH, mono, Les Problemes de Main-D'oeuvre dans la Communaute, en 1966, Apr 1966.  
\*CFSTI TT 68-50077

Rationalisation in High Rise and Family Type Dwellings, Assignments, Methods, Results 1946-1966, 180 pp.  
GERMAN, mono, Institut fur Bauforschung E. V., 1966.  
\*CFSTI TT 68-50454

Biological & Medical Sciences

Sex in Plants, by L. T. Dahparidse, 301 pp.  
RUSSIAN, mono, Vol 2.  
\*CFSTI TT 68-50453

Scientific  
Biological & Medical Sciences (Contd)

Study of the Etiology of Human Leukemia in Experiments on Primates (Part II), by B. A. Lapin, et al.  
RUSSIAN, per, Akad Med Nauk SSSR, 1967 pp 167-183.  
HEW-NIH  
2-25-68

IR Absorption Spectra of Diaryl Substituted 1,4-Divinyl-Benzene, by L. Ya. Malkes.  
RUSSIAN, rpt, AN SSSR, Otdeleniye Fiziko-Matematicheskikh Nauk, Optika i Spektroskopiya t. 3: Molekulyarnaya Spektroskopiya, Izd-vo Nauka, Vol 3, 1967, pp 258-262.  
\*FTD-HT-23-210-68

Use of Polarographic Method in the Determination of Rubomycin Concentrations in Solutions, by V.B. Dorozhinskiy, 5 pp.  
RUSSIAN, per, Antibiotiki, No. 9, Moscow, Sept 67, pp. 795-797.  
JPRS 44,655

Effect of Antibiotics on Intracellular Bacteria, by V.N.Solov'yev, 13 pp.  
RUSSIAN, per, Antibiotiki, No. 9, Moscow, Sept 67, pp. 857-861.  
JPRS 44,655

Antiviral Activity of the Antibiotic Rubomycin, by N.A. Blyumberg and N.I. Kalamova, 10 pp.  
RUSSIAN, per, Antibiotiki, Vol 12, No. 10, Moscow, Oct 67, pp. 898-903.  
JPRS 44,656

Synthesis of a Substance of Adrenocorticotrophic Nature, Induced in a Cell-Free Escherichia Coli System by Information RNA from Bovine Adenohypophyses, by I. N. Todorov, et al.  
RUSSIAN, per, Biokhimiya, Vol 32, No 2, 1967, pp 283-292.  
HEW-NIH  
2-11-68

Cybernetics Symposium Held in Tbilisi, by M.A. Oganessyants, 4 pp.  
RUSSIAN, per, Biologicheskii Zhurnal Armenii, No. 10, Yerevan, Oct 67, pp. 107-109.  
JPRS 44,522

Scientific  
Biological & Medical Sciences (Contd)

Secondary Growth and Secondary Flowering of Persian Walnut, by F. L. Shchepot'ev, 15 pp.  
RUSSIAN, per, Botanicheskii Zhurnal, Vol 40, No 1, 1955, pp 116-125.  
CFSTI TT 67-51316

On the Vegetation of the Bald and Sub-Bald Belts of the Bikin-Iman Water Divide, by A. F. Pryalukhina, 6 pp.  
RUSSIAN, per, Botanicheskii Zhurnal, Vol 43, No 1, 1958, pp 92-96.  
CFSTI TT 67-51334

The Negative Action of a Large Amount of Pollen in Pollination of Persian Walnut (*Juglans Regia*), by A. A. Kavetskaya and L. O. Tokar', 7 pp.  
RUSSIAN, per, Botanicheskii Zhurnal, No 4; 1963, pp 580-585.  
CFSTI TT 67-51325

Changes in the Electrical Sensitivity of the Eye during the Course of the Day, by A. I. Bogoslovskiy, 6 pp.  
RUSSIAN, per, Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 3, 1937, pp 140-142.  
P911049768  
AEC UCRL-Trans-10167

On the Effect of Sound on the Electrical Sensitivity of the Eye, by A. I. Bogoslovskiy, 9 pp.  
RUSSIAN, per, Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 3, 1937, pp 329-332.  
P911048768  
AEC UCRL-Trans-10168

On the Question of Fusion of Light Flicker brought about by Electrical Stimulation of the Eye (Preliminary Communication), by A. I. Bogoslovskiy, 10 pp.  
RUSSIAN, per, Byulleten' Eksperimental'noi Biologii i Meditsiny, Vol 3, 1937, pp 333-336.  
P911048468  
AEC UCRL-Trans-10169

The Effect of Certain Biogenic Elements on the Primary Production in the Chupinskaya guba of the White Sea, Investigated by the Method of Designed Addition, by V. D. Fedorov.  
RUSSIAN, per, Issledovaniye Metodov Planiruyemykh Dobevoek na Pervichnyuyu Produktivuyu V Chupinskoy Gube Belogo Morya. Doklady Akademii Nauk, SSSR, Vol 175, No 1, 1967, pp 220-223.  
\*Dept of Navy HOO tr 404

Scientific  
Biological & Medical Sciences (Contd)

Threshold of Galvanic Phosphores in Light and Darkness, by L. L. Shik, 17 pp.  
RUSSIAN, per, Fiziologicheskii Zhurnal SSSR, Vol 18, 1935, pp 231-236.  
P911047369  
AEC UCRL-Trans-10194

Mechanism of Increasing Osmotic Resistance of Rats' Erythrocytes with Adaption to Hypoxia, by Z. I. Barbashova.  
RUSSIAN, per, Fiziologicheskii Zhurnal SSSR, Vol 50, 1964, pp 1385-1392.  
\*NASA TT F-11,410

Conjugate Bilateral Functioning of the Vestibular Apparatus, by G. I. Gorgiladze.  
RUSSIAN, per, Fiziol Zh SSSR Sechenov, Vol 52, No 6, 1966, pp 669-676.  
HEW-NIH (Only on Loan)  
2-34-68

Genetics of Heterosis, by N. V. Turbin, L. V. Khotyleva.  
RUSSIAN, bk, Genetika Geterozisa, 1964.  
CFSTI TT 67-51221

Seasonal Changes of Immunological Reactivity in Persons Working in the Open Air, by Ye. N. Nikolayeva, 6 pp.  
RUSSIAN, per, Gigiyena i Sanitariya, Vol. 33, No. 1, Moscow, Meditsina Press, Jan 68, pp. 55-57.  
JPRS 44,563

Occurrence of *Clostridium Botulinum* and *Clostridium Tetani* in the Soil of Armenian SSR, by K.M. Ayanyan, et al, 5 pp.  
RUSSIAN, per, Gigiyena i Sanitariya, Vol. 33, No. 1, Jan 68, Moscow, Meditsina Press, pp. 114-116.  
JPRS 44,563

Results and Goals of Hygienic Research in RSFSR, by G.M. Mukhametova, et al, 6 pp.  
RUSSIAN, per, Gigiyena i Sanitariya, Vol. 33, No. 1, Jan 68, Moscow, Meditsina Press, pp. 121-123.  
JPRS 44,563

Surgical Aspects of Repair Operations on the Heart and Blood Vessels, by G.M. Solov'yev, 10 pp.  
RUSSIAN, per, Grudnaya Khirurgiya, No. 6, Moscow, 1967, pp. 6-9.  
JPRS 44,707

Scientific  
Biological & Medical Sciences (Contd)

Progress in the Use of Anesthesia in Chest Surgery and Prospects for the Future, by O.A. Dolina and Yu. N. Zhilin, 6 pp.  
RUSSIAN, per, Grudnaya Khirurgiya, No. 6, Nov-Dec 67, Moscow, pp. 24-27.  
JPRS 44,707

Calanoids of the Far Eastern Seas and Polar Basin of the USSR, 440 pp.  
RUSSIAN, bk, Izdatel'stvo Akademii Nauk SSSR, 1950.  
CFSTI TT 67-51200

Soviet Fisheries Investigations in the Northeast Pacific, 333 pp.  
RUSSIAN, bk, Izdatel'stvo Rybnoe Khozyaistvo Moskva, 1963.  
CFSTI TT-67-51203

Clinical Aspects of Space Cardiology, by V.V. Parin, 9 pp.  
RUSSIAN, per, Kardiologiya, No. 11, Moscow, Nov 67, pp. 13-18.  
JPRS 44,463

Soviet Advances in Heart Surgery, by G.M. Solv'yev, 6 pp.  
RUSSIAN, per, Kardiologiya, No. 11, Moscow, Nov 67, pp. 18-22.  
JPRS 44,463

Automatic Deciphering of Ballistograms With Use of Computers, by G.I. Sidorenko and G.A. Afanas'yev, 10 pp.  
RUSSIAN, per, Kardiologiya, No. 12, Moscow, Dec 67, pp. 117-123.  
JPRS 44,460

Hemangioendothelioma of the Stomach, by E. S. Futorian, 5 pp.  
RUSSIAN, per, Khirurgiya, Moscow, Vol 39, Jun 1963, pp 128-129.  
Dept of Navy/NMS 1242

Drug Therapy of Rheumatism in the USSR During the Last Fifty Years, by M.A. Yasinovskiy, 9 pp.  
RUSSIAN, per, Klinicheskaya Meditsina, Vol. XLV, No. 11, Moscow, Nov 67, pp. 62-67.  
JPRS 44,436

Scientific  
Biological & Medical Sciences (Contd)

Treatment of Tuberculosis in the Soviet Union: Fifty Years of Progress, by F.A. Mikhaylov, 10 pp.  
RUSSIAN, per, Klinicheskaya Meditsina, Vol. XLV, No. 11, Moscow, Nov 67, pp. 68-73.  
JPRS 44,436

Fifty Years of Soviet Pneumology, by K.G. Mikulin, 6 pp.  
RUSSIAN, per, Klinicheskaya Meditsina, Vol. XLV, No. 11, Moscow, Nov 67, pp. 74-77.  
JPRS 44,436

Surgical Advances During the Fifty Years of the Soviet Regime, by A.T. Lidskiy, 11 pp.  
RUSSIAN, per, Klinicheskaya Meditsina, Vol. XLV, No. 11, Moscow, Nov 67, pp. 77-84.  
JPRS 44,436

Accomplishments of the Soviet Public Health Service in the Prevention of Infectious Diseases During the Last Fifty Years, by I.I. Velkin, 9 pp.  
RUSSIAN, per, Klinicheskaya Meditsina, Vol. XLV, No. 11, Moscow, Nov 67, pp. 109-114.  
JPRS 44,436

The Development of Immunotherapy of Infectious Diseases in the USSR During the Last Fifty Years, by K.V. Bunin, 10 pp.  
RUSSIAN, per, Klinicheskaya Meditsina, Vol. XLV, No. 11, Moscow, Nov 67, pp. 114-120.  
JPRS 44,436

The Prevention of Childhood Diseases During the Last Fifty Years, by M.Z. Zhukovskiy, 10 pp.  
RUSSIAN, per, Klinicheskaya Meditsina, Vol. XLV, No. 11, Moscow, Nov 67, pp. 120-126.  
JPRS 44,436

Achievements in the Field of Occupational Pathology During the Soviet Regime, by K.P. Molokanov, 9 pp.  
RUSSIAN, per, Klinicheskaya Meditsina, Vol. XLV, No. 11, Moscow, Nov 67, pp. 126-131.  
JPRS 44,436

Scientific  
Biological & Medical Sciences (Contd)

Fifty Years of Soviet Occupational Dermatology,  
by A. Torsuyev, et al., 9 pp.  
RUSSIAN, per, Klinicheskaya Meditsina,  
Vol. XLV, No. 11, Moscow, Nov 67,  
pp. 132-138.  
JPRS 44,436

Fifty Years of Higher Medical Education in  
the USSR, by V.V. Yermakov, 6 pp.  
RUSSIAN, per, Klinicheskaya Meditsina,  
Vol. XLV, No. 11, Moscow, Nov 67,  
pp. 138-142.  
JPRS 44,436

Cybernetics in Biology and Medicine, by  
V. Parin, et al, 13 pp.  
RUSSIAN, per, Kommunist, No. 1, Moscow,  
Jan 67, pp. 69-79.  
JPRS 44,432

Ukrainian Epidemiologist L.V. Grom-  
ashevskiy Honored, by Yuriy Shcherbak,  
7 pp.  
RUSSIAN, newspaper, Literaturnaya  
Gazeta, No. 5, Moscow, 1968,  
p. 12.  
JPRS 44,706

The Effectiveness of Several New Repellents  
Against Gnats (Simuliidae), by M. L. Fedder &  
S. B. Kerabayev.  
RUSSIAN, per, Meditsinskaya Parazitologiya i  
Parazitarnyye Bolezni, No 4, 1962, pp 429-434.  
\*ACSI J-4534  
ID 2204011468

The Chemoreception of Insects, by L. V. Ivanova.  
RUSSIAN, per, Meditsinskaya Parazitologiya i  
Parazitarnyye Bolezni, No 5, 1964, pp 608-612.  
\*ACSI J-4532  
ID 2204011268

Method of Testing New Repellents, by A. A. Potapov.  
RUSSIAN, per, Meditsinskaya Parazitologiya i  
Parazitarnyye Bolezni, No 1, 1965, pp 41-46.  
\*ACSI J-4533  
ID 2204011368

Repellents Against Various Examples of Blood-  
Sucking Flies - Survey of Literature, by  
V. V. Vladimirova.  
RUSSIAN, per, Meditsinskaya Parazitologiya i  
Parazitarnyye Bolezni, No 3, 1965, pp 340-346.  
\*ACSI J-4530  
ID 2204011068

Scientific  
Biological & Medical Sciences (Contd)

Preliminary Data From Field Tests of a New  
Repellent, Piperidilamid H-Tolual Acid, by  
L. V. Ivanova & V. I. Stavrovskya.  
RUSSIAN, per, Meditsinskaya Parazitologiya i  
Parazitarnyye Bolezni, No 3, 1966, pp 320-323.  
\*ACSI J-4531  
ID 2204011168

Determination of the Coefficient of Reflection  
for Multi-layered Systems of Biological Tissues  
in the Microwave Range, by A. R. Livenson.  
RUSSIAN, per, Meditsinskaya promyshlennost' SSSR,  
No 10, 1966, pp 17-24.  
\*FTD-HT-23-232-68

Radiation Injury of Myelopoiesis in Monkeys, by  
M. I. Novikova, 5 pp.  
RUSSIAN, per, Meditsinskaya Radiologiya, Vol 10,  
No 6, 1965, pp 42-46. FI00048668-V  
FTD-MT-24-154-67

Adaptation of *Rhizoctonia Solani*  
Kuehn to Fungicides, by Yu.T.D'yakov,  
10 pp.  
RUSSIAN, per, Mikologiya i Fitopato-  
logiya, No. 4, Leningrad, 1967,  
pp. 314-320.  
JPRS 44,565

Basic Achievements and Personalities  
of Soviet Microbiology, by Ya. I.  
Rautenshteyn, 17 pp.  
RUSSIAN, journal, Mikrobiologiya,  
Vol. XXXVI, Issue 5, Moscow, Sept-  
Oct 67, pp. 753-765.  
JPRS 44,641

Problems in Training Microbiologists,  
by N.S. Yegorov, 13 pp.  
RUSSIAN, journal, Mikrobiologiya,  
Vol. XXXVI, Issue 5, Moscow, Sept-  
Oct, 67, pp. 860-869.  
JPRS 44,641

The Adaptation of Certain Bacteria  
to Polyvinyl Alcohol Fibers Having  
Antimicrobial Properties, 6 pp.  
RUSSIAN, per, Mikrobiologiya, Vol 36,  
No. 6, Moscow, Nov-Dec 67, pp.1030-  
1035.  
JPRS 44,594

Scientific  
Biological & Medical Sciences (Contd)

Prolonged Storage of Microorganisms,  
by V.I. Kuznetsova and N.V. Novotel'-  
nov, 7 pp.  
RUSSIAN, per, Mikrobiologiya,  
Vol. 36, No. 6, Moscow, Nov/Dec 67,  
pp. 1100-1104.  
JPRS 44,594

Studies on the Content and Distribution of Zinc  
in the Pancreas, by I. A. Shevchuk.  
RUSSIAN, per, Mikroelem. Sel. Khoz. i Med.,  
1962 (1963), pp 669-672.  
AEC UCRL-Tr-10099 P911043868

Experience of Daily Registration of Patients  
in Psychiatric Hospitals, by M. I. Rybal'skiy,  
et al.  
RUSSIAN, rpt, Ministry of Public Health of the  
RSFSR, 1963, 78 pp.  
HEW-NIH  
2-21-68

Electron Stimulation of Biopolymers, by S. V.  
Konev, 251 pp.  
RUSSIAN, bk, Minsk: Nauka i Tekhnika, 1965.  
Dept of Navy/NMS 1236

Report on American Dolphin Studies, by  
J. Illude, 11 pp.  
RUSSIAN, per, Nauka i Zhizn', No. 12,  
Moscow, 1967, pp. 54-58.  
JPRS 44,617

Present Status and Trends in Investigation of  
the Human Cardiovascular System in Space Flights,  
by I. T. Akulinichev.  
RUSSIAN, rpt, Report Presented at the Eighteenth  
Congress of the International Astronautical Fed-  
eration, Belgrade, 25-30 Sept 1967, 10 pp.  
NASA TT F-11,395

Distinctions of Auditory Analyzer Functions  
During Prolonged Exposure of Man to Changed  
Gas Environment, by Ye. N. Yeganov.  
RUSSIAN, rpt, Paper Presented at the Eighteenth  
Congress of the International Astronautical Fed-  
eration, Belgrade, 25-30 Sept, 1967, 8 pp.  
NASA TT F-11,396

Investigation of Long-Term Effect of a Reduced-  
Pressure Oxygen Atmosphere on Animals and Man,  
by A. E. Genin.  
RUSSIAN, rpt, Paper Presented at the Eighteenth  
Congress of the International Astronautical Fed-  
eration, Belgrade, 25-30 Sept 1967, 13 pp.  
NASA TT F-11,400

Scientific  
Biological & Medical Sciences (Contd)

Changes in the Tolerance of Man to Transverse  
Accelerations, by A. R. Kotovskaya.  
RUSSIAN, rpt, Paper Presented at the Eighteenth  
Congress of the International Astronautical Fed-  
eration, Belgrade, 25-30 Sept 1967, 17 pp.  
NASA TT F-11,401

Hemiptera, Fleas, and Ticks as Carriers of  
the Virus of Exanthematous Typhus in Experi-  
mental Conditions, by A. A. Klimentova, et al.  
RUSSIAN, rpt, Parasity, Perenoschiki i Iadovitye  
Zhivotnye, Moscow, Izdatel. Vsesoiuznyi Insti-  
tut Eksperimental'noi Meditsiny im. A. M.  
Gor'kogo, 1935, p 71.  
HEW-NIH  
2-16-68

The Effect of Aeration on the Vital Activity  
of Microorganisms, by I. S. Korshunov.  
RUSSIAN, per, Prikladnaya Biokhimiya i  
Mikrobiologiya, Vol 2, No 6, 1966, pp 714-724.  
\*ACSI J-4584  
ID 2204012468

Localization of Changes in the Electrical  
Excitability of the Visual Apparatus during  
Dark Adaptation, by V. A. Akimochkina, 7 pp.  
RUSSIAN, per, Problemy Fiziolog. Optiki,  
Vol 1, 1941, pp 125-127. P911048368  
AEC UCRL-Trans-10173

Electrical Sensitivity of the Eye Before  
and After Enucleation, by A. I. Bogoslovskiy  
and E. M. Ivanova, 21 pp.  
RUSSIAN, per, Problemy Fiziolog. Optiki,  
Vol 1, 1941, pp 129-136. P911047968  
AEC UCRL-Trans-10174

Clinico-Morphological Features of Leukoses in  
the Newborn, by I. G. Yudin.  
RUSSIAN, per, Probl Genet, Vol 12, No 1, 1967,  
pp 41-43.  
HEW-NIH  
2-9-68

Intensity of Leukocyte Emigration in the Oral  
Cavity in Patients with Diseases of the Blood  
System in Transfusion of Blood and of Its Com-  
ponents, by A. B. Zolotarev.  
RUSSIAN, per, Probl Genet, Vol 12, No 8, 1967,  
pp 27-30.  
HEW-NIH  
2-13-68

Scientific  
Biological & Medical Sciences (Contd)

Effect of Transplantation of Fresh Homologous Bone Marrow on the Course of Hypoplastic and Aplastic Anemias, by F.E. Faynshteyn et al., 8 pp.  
RUSSIAN, per, Problemy Gematologii i Perelivaniya Krovi, No. 12, Moscow, 1967, pp. 3-8.  
JPRS 44,434

Sex in Plants, by L. I. Dzhaparidze.  
RUSSIAN, bk, Pul u Rastenii, 1963.  
CPSTI TT 67-51208

Structure and Design Characteristics of Radio-Cybernetic Systems, by K. Yu. Agranovskiy, 76 pp.  
RUSSIAN, paper, Radio-Kiberneticheskiye Metody Upravleniya Morskimi Obyektami, Leningrad, 1967, pp. 34-72.  
JPRS 44,470

A Fish Run at the Upper Tulom Hydroelectric Station, by V. F. Briagin.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 10, 1967, pp 27-30.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Ways for the Fishery Development of Ukrainian Bodies of Water, by V. A. Kravtchinskii and G. Galova.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, pp 23-24.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Rare Sturgeons, by M. I. Koshin.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, pp 26-27.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Certain Questions of Midwater Herring Fishing, by V. I. Smukov.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, pp 43-45.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Scientific  
Biological & Medical Sciences (Contd)

Dishes from Shark Meat, by M. Tatarnikova.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, p 54.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Using Fish Meal for Raising the Caloric Content of Food Dishes, by A. I. Danilova.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, pp 64-66.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

New Types of Canned Foods from the Whales, by O. D. Saliuk.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, pp 67-68.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

A Study of the Food Value of Squid and Mussels, by Yu. M. Nemenova, G. S. Korobkina.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11, 1967, pp 73-75.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Microbes and Toxic Chemicals in the Struggle Against Plant Pests, by M.A. Krasil'nikov, 14 pp.  
RUSSIAN, journal, Sel'skokhozyaystvennaya Biologiya, Moscow, Vol. 11, No. 6, 1967, pp. 857-860.  
JPRS 44,489

Comparison of Clinical and Immunological Results in Patients with Typhoid Fever, Treated with Levomycetin, by I. V. Rubtsov.  
RUSSIAN, per, Sov. Meditsina, Vol 27, 1963, pp 76-82.  
\*Dept of Navy/MB 1259

Interspecies Hybridization of Walnuts, by A. S. Yablokov, 8 pp.  
RUSSIAN, per, Soyetskaya Entomologiya, No 5, 1936, pp 53-60.  
\*CPSTI TT 68-50401

Scientific  
Biological & Medical Sciences (Contd)

Problems in Modern Public Health Management, 12 pp.  
RUSSIAN, per, Sovetskoye Zdravookh-raneniye, No. 12, Moscow, 1967, pp. 3-10.  
JPRS 44,556

Certain Theoretical Problems in Public Health Management, by V.V. Yermakov, et al., 12 pp.  
RUSSIAN, per, Sovetskoye Zdravookh-raneniye, No. 12, Moscow, 1967, pp. 10-17.  
JPRS 44,556

Basic Directions in the Use of Cybernetics and Computer Technology in Medicine in Certain Countries, by B. Dmitriyev, 12 pp.  
RUSSIAN, per, Sovetskoye Zdravookh-raneniye, No. 12, Moscow, 1967, pp. 17-25.  
JPRS 44,556

Scientific-Technical Progress Under Socialism and Socio-Hygienic Problems of Medicine, by A.M. Izutkin, 8 pp.  
RUSSIAN, per, Sovetskoye Zdravookh-raneniye, No. 12, Moscow, 1967, pp. 25-30.  
JPRS 44,556

Morbidity in Leningrad on the Basis of a One-Time Census of Hospitalized Patients, by V.A. Minyayev, 6 pp.  
RUSSIAN, per, Sovetskoye Zdravookh-raneniye, No. 12, Moscow, 1967, pp. 30-34.  
JPRS 44,556

Rehabilitation in the Case of Diseases of the Nervous System, by L.G. Stolyarova, 7 pp.  
RUSSIAN, per, Sovetskoye Zdravookh-raneniye, No. 12, Moscow, 1967, pp. 40-44.  
JPRS 44,556

Rehabilitation of Patients Following Trauma and Diseases of the Locomotor Apparatus, by A.F. Kaptelin, 7 pp.  
RUSSIAN, per, Sovetskoye Zdravookh-raneniye, No. 12, Moscow, 1967, pp. 45-49.  
JPRS 44,556

Scientific  
Biological & Medical Sciences (Contd)

Problems Concerning the Rehabilitation of Neurosurgical Patients, by Ye.N. Vinarskaya and V.L. Naydin, 5 pp.  
RUSSIAN, per, Sovetskoye Zdravookh-raneniye, No. 12, Moscow, 1967, pp. 49-52.  
JPRS 44,556

Restoration of the Work Capacity of Patients Radically Treated for Cancer of the Mammary Gland, Abdomen, and Rectum, by V.N. Demin and S.G. Reznikov, 5 pp.  
RUSSIAN, per, Sovetskoye Zdravookh-raneniye, No. 12, Moscow, 1967, pp. 52-55.

The Malaria Problem in African Countries, by O.P. Shchepin, 7 pp.  
RUSSIAN, per, Sovetskoye Zdravookh-raneniye, No. 12, Moscow, 1967, pp. 82-84.  
JPRS 44,556

Contents of Sovetskoye Zdravookh-raneniye for 1967, 24 pp.  
RUSSIAN, per, Sovetskoye Zdravookh-raneniye, No. 12, Moscow, 1967, pp. 85-93.  
JPRS 44,556

History of Soviet Stomatology, by A.I. Yevdokimov, 10 pp.  
RUSSIAN, per, Stomatologiya, No. 5, Moscow, Sept-Oct 67, pp. 6-12.  
JPRS 44,519

Achievements and Prospects of Soviet Stomatology, by A.G. Safonov, 9 pp.  
RUSSIAN, per, Stomatologiya, No. 5, Sept-Oct 67, Moscow, pp. 13-19.  
JPRS 44,519

The Effect of Laser Radiation on the Teeth and Soft Tissues of the Oral Cavity, by A.I. Rybakov, et al., 5 pp.  
RUSSIAN, per, Stomatologiya, No. 5, Moscow, Sept-Oct 67, pp. 43-46.  
JPRS 44,519

Forensic Medicine and Material Evidence in the USSR, by M.A. Bronnikova and A.S. Garkavi, 7 pp.  
RUSSIAN, per, Sudebno-meditsinskaya Ekspertiza, No. 4, Moscow, 1967, pp. 3-7.  
JPRS 44,435



Scientific  
Biological & Medical Sciences (Contd)

Biological Effects of Rare, Dispersed and Other Metals and Their Compounds Used in Industry, by S. S. Sendratskaya.  
RUSSIAN, bk, Toksikologiya Redkikh Metallov i spetsializ., Moscow, 1963, pp 117-135.  
P911084668  
AEC-TT-1283

Evaluation of the Chemical Basis of Biological Productivity in the Black Sea and Some Characteristics of Its Formation, by Ya. K. Gololobov.  
RUSSIAN, per, Otsenka Sostoyaniya Khimicheskoy Bazy Biologicheskoy Produktivnosti Chernogo Morya i Nekotoryye Osobennosti Yeye Formirovaniya Trudy AzhernIRO, Vol 23, 1964, pp 33-48.  
\*Dept of Navy N00 tr 407

The Breeding of Forest Trees in Uzbekistan, by V. M. Rovskii, 20 pp.  
RUSSIAN, per, Academiya Nauk SSSR, Trudy Instituta Lesa, Vol 8, 1951, pp 132-151.  
CFSTI TT 67-51304

Theoretical Conception of Mortality of Bark Beetles, by I. V. Pan'shin, 2 pp.  
RUSSIAN, per, Vestnik Sel'skokhozyaistvennoi Nauki, Vol 7, No 3, 1962, pp 133-134.  
\*CFSTI TT 68-50402

Fifty Years of the All-Union Institute of Experimental Veterinary Medicine, 6 pp  
RUSSIAN, per, Veterinariya, No. 1, Moscow, 1968, pp. 4-8.  
JPRS 44,667

Biochemistry of the Nervous System, by A. V. Palladin.  
RUSSIAN, bk, Voprosy Biokhimi Nervnoi Sistemy, 1965.  
CFSTI TT 67-51375  
NASA TT F-439

Molecular Biology and the Problem of Development, by R.S. Karpinskaya, 19 pp.  
RUSSIAN, journal, Voprosy Filosofii, No. 11, Moscow, 1967, pp. 99-110.  
JPRS 44,595

The Third All-Union Symposium on Cybernetics in Tbilisi, by O.Ya. Gel'man and B.G. Yudin, 9 pp.  
RUSSIAN, per, Voprosy Filosofii, No. 1, Moscow, 1968, pp. 144-148.  
JPRS 44,590

Scientific  
Biological & Medical Sciences (Contd)

Synthesis in Vitro of Serum Embryonic Antigens by the Liver, by G. I. Abelev.  
RUSSIAN, per, Vop Med Khim, Vol 13, No 4, 1967, pp 378-383.  
HEW-NIH  
2-17-68

Basic Stages in the Development of Human and Animal Biochemistry in the USSR, by S. Ye. Severin, 13 pp.  
RUSSIAN, Voprosy Meditsinskoy Khimii, Moscow, Vol XIII, No. 5, 1967, pp. 451-461.  
JPRS 44,668

Contributions of Organizations to Development of Soviet Neurosurgery, by G.P. Kornyskiy, 9 pp.  
RUSSIAN, per, Voprosy Neyrokhirurgii, Vol. 31, No. 6, Moscow, Nov-Dec 67, pp. 1-6.  
JPRS 44,430

Malignant Hemangioendothelioma of the Heart with Metastases to the Lungs, by V. L. Kovalenko, 5 pp.  
RUSSIAN, per, Vop Onkol, Vol 11, 1965, pp 90-91.  
Dept of Navy/NMS 1241

Future Problems in Soviet Psychology, by A.N. Leont'yev, 19 pp.  
RUSSIAN, per, Voprosy Psikhologii, No. 6, Moscow, Nov-Dec 67, pp. 7-22.  
JPRS 44,640

From Aviation Psychology to Space Psychology, by F.D. Gorbov and F.P. Kosmolinskiy, 19 pp.  
RUSSIAN, per, Voprosy Psikhologii, No. 6, Moscow, Nov-Dec 67, pp.46-58.  
JPRS 44,640

Military Psychology in the USSR, by A.V. Barabanshchikov, et al., 16 pp.  
RUSSIAN, per, Voprosy Psikhologii, No. 6, Moscow, Nov/Dec 67, pp. 76-84.  
JPRS 44,619

Sensitivity of Diploid Cell Strains and Other Cell Cultures of Rhinoviruses, by R.S. Dreizin, V. D. Belyatsky, et al.  
RUSSIAN, per, Voprosy Virusologii, No 2, 1965, pp 191-197.  
ACSI J-4033  
ID 2204061667

Scientific  
Biological & Medical Sciences (Contd)

Contamination of Tissue Cultures by Pleuro-pneumonia-Like Organisms, by I. V. Rakovskaya.  
RUSSIAN, per, Voprosy Virusologii, No 2, 1965,  
pp 233-235.  
ACSI J-4033  
ID 2204061667

A Cultivating Method for Virus and Tissue Cultures in Revolving Containers, by G. M. Gmuni  
8 pp.  
RUSSIAN, per, Voprosy Virusologii, No 1, Jan-Feb 1966.  
ACSI J-2952  
ID 2204031467

Chronic Infection of Transplanted Swine Kidney Cells Due to Monkey Adenovirus, Type M2, by V. I. Gaurilov, et al.  
RUSSIAN, per, Voprosy Virusologii, No 1, 1966,  
pp 43-114.  
ACSI J-4029  
ID 2204061267

Several Features of Photographing Tissue Cultures Grown in Penicillin Flasks or Test Tubes, by K. L. Val'dman.  
RUSSIAN, per, Voprosy Virusologii, No 1, 1966,  
pp 114-116.  
ACSI J-4029  
ID 2204061267

Influence of Several Factors on Plaque Formation by the Newcastle Disease Virus, by M. A. Lipkind.  
RUSSIAN, per, Voprosy Virusologii, No 3, 1966,  
pp 260-266.  
ACSI J-4034A  
ID 2204061767

Precipitating Antigens of Viruses of the Tick-Borne Encephalitis Group Obtained in Tissue Cultures, by V. S. Kokorev, S. F. Zakirova.  
RUSSIAN, per, Voprosy Virusologii, No 3, 1966, pp 357-362.  
ACSI J-4034B  
ID 2204061767

The ARD-0.5 Device for Establishing Precise Pressure during Sterilising Filtration of Tissue Culture Media, by I. M. Nikonov and V. I. Gavrillov.  
RUSSIAN, per, Voprosy Virusologii, No 3, 1966, pp 368-370.  
ACSI J-4034C  
ID 2204061767.

Scientific  
Biological & Medical Sciences (Contd)

Study of the Properties of Rabbit Smallpox Virus Isolated from Rhesus Macaco Monkey Kidney Cultures, by A. K. Alekseyeva and I. I. Akopova.  
RUSSIAN, per, Voprosy Virusologii, No 5, 1966,  
pp 532-539.  
ACSI J-4032A  
ID 2204061567

Epithelial-Like Strain Isolated from the Skin-Muscle Tissue of a Human Embryo, by I. Bradvarova and S. Atsev.  
RUSSIAN, per, Voprosy Virusologii, No 5, 1966,  
pp 607-609.  
ACSI J-4032-B  
ID 2204061567

Control of the pH Culture Medium When Mammalian Cells Are Being Cultured, by A. Ye. Khalizev.  
RUSSIAN, per, Voprosy Virusologii, No 5, 1966,  
pp 610-612.  
ACSI J-4032C  
ID 2204061567

Method of Obtaining Clonal Cell Lines from Transplanted Cultures in Primary Culture of Human Embryo Fibroblasts, by P. Andonov and S. Dundarov.  
RUSSIAN, per, Voprosy Virusologii, No 5, 1966,  
pp 616-617.  
ACSI J-4032D  
ID 2204061567

Isolation of Thermoresistant Mutants of Herpes Simplex Virus Using the Plaque Method, by A.B. Germanov,  
8 pp.  
RUSSIAN, per, Voprosy Virusologii, No. 2, Moscow, 1967, pp. 182-186.  
JPRS 44,564

Protection for Everyone, by V. Danilyuk.  
RUSSIAN, per, Voennoye Znaniya, No 1, 1968, pp 20-21.  
\*ACSI J-4458  
ID 2204008868

Protection of Respiratory Organs and Skin, by V. Danilyuk.  
RUSSIAN, per, Voennoye Znaniya, No 1, 1968, pp 20-21.  
\*ACSI J-4458  
ID 2204008868

Scientific  
Biological & Medical Sciences (Contd)

Belorussian Public Health on Fiftieth Anniversary of Soviet Rule, by N. Ye. Savchenko, 10 pp.  
RUSSIAN, journal, Zdravookhraneniye Belorussii, Minsk, No. 11, 1967, pp. 5-12.  
JPRS 44,567

Main Achievements of the Health System in the Russian Federation During the Past Fifty Years, by V.V. Trofimov, 10 pp.  
RUSSIAN, per, Zdravookhraneniye Rossiyskoy Federatsii, No. 11, Moscow, Nov 67, pp. 3-12.  
JPRS 44,568

Higher and Intermediate Medical Education in the RSFSR During the Past Fifty Years, by S.S. Mikhaylov and V.F. Matveyev, 7 pp.  
RUSSIAN, per, Zdravookhraneniye Rossiyskoy Federatsii, No. 11, Moscow, Nov 67, pp. 13-18.  
JPRS 44,568

Medical Care for USSR Industrial Workers During the Fifty Years of the Soviet Regime, by I.D. Bogatyrev, 9 pp.  
RUSSIAN, per, Zdravookhraneniye Rossiyskoy Federatsii, No. 11, Moscow, Nov 67, pp. 18-23.  
JPRS 44,568

Statistical Data on the Growth of Medical Personnel in the Medical Establishments of the RSFSR During the Fifty Years Since the Great October Socialist Revolution, by V.N. Ivakina, 12 pp.  
RUSSIAN, per, Zdravookhraneniye Rossiyskoy Federatsii, No. 11, Moscow, Nov 67, pp. 40-48.  
JPRS 44,568

Dynamics of the H- and O-Agglutinins Titers in Patients with Typhoid Fever, Treated with Levomysetin and Antibiotic, in Combination with Vaccine, by P. A. Alise.  
RUSSIAN, per, Zhurnal Mikrobiologii i Immunologii, Vol 41, 1964, pp 35-41.  
\*Dept of Navy/NSA 1255

Scientific  
Biological & Medical Sciences (Contd)

Mutual Adaptation of Ticks *Ornithodoros Lohorensis* Neum. and the Causative Agent of Tick-Borne Typhus (*Dermacentor sibiricus*), 6 pp  
RUSSIAN, per, Zhurnal Mikrobiologii i Immunologii, No 6, June 1966, pp 133-138.  
ACSI J-2948  
ID 2204031067

The Role of Streptococcal Hyaluronidase in the Resorption Mechanism of Corpuscular Antigen and Its Penetration through the Mucous Barrier of the Respiratory Tract, 4 pp.  
RUSSIAN, per, Zhurnal Mikrobiologii i Immunologii, No 3, 1967, pp 60-63.  
ACSI J-3193  
ID 2204037167

A Study of the Bactericidal and Sporocidal Properties of the Aerosols of the New Disinfectants, by M.A. Veselov and A. I. Osipova, 7 pp.  
RUSSIAN, per, Zhurnal Mikrobiologii, Epidemiologii i Immunologii, No. 12, Moscow, Dec 67.  
JPRS 44,639

Infectious Allergy Resulting From the Combined Injection of Several Bacterial Exotoxins, by A.T. Kravchenko and L.I. Privalova, 8 pp.  
RUSSIAN, per, Zhurnal Mikrobiologii, Epidemiologii i Immunologii, No. 1, Moscow, 1968, pp. 6-10.  
JPRS 44,657

Problems of Hypokinesia, by L.A. Ioffe, 7 pp.  
RUSSIAN, journal, Znaniye i Sila, No. 12, Moscow, 1967, pp. 18-20.  
JPRS 44,589

Water Content and Water Balance Regulation in Female Ixodid Ticks, by V. M. Beloszerov, RUSSIAN, per, Zool Zh, Vol 46, No 8, 1967, pp 1182-1187.  
HEW-NIH (Only on Loan)  
2-28-68

Contact Lens for Protecting the Eyes of Albinos, by Eduard Gogler & Paul Asprion.  
AUSTRIAN, Patent No. 167,273  
Dept of Comm  
Patent Office

Scientific  
Biological & Medical Sciences (Cont'd)

Fifth Congress of the Yugoslav Physiologists Union, by Dr. Vasil P. Georgiev, 6 pp.  
BULGARIAN, per, Priroda, No. 6, Sofia, Nov-Dec 67, pp. 87-89.  
JPRS 44,628

Soviet Military Medicine and Its Influence on Bulgarian Military Medicine, by Maj.Gen Marko St. Markov, 10 pp.  
BULGARIAN, per, Voenno-meditsinsko Delo, Sofia, No. 6, Dec 67, pp. 3-10.  
JPRS 44,622

A Study of Amblyomma Cyprium Neumann, 1899, Collected from Human Body, by P. H. Chang.  
CHINESE, per, Acta Ent Sin, Vol 8, No 3, 1958, pp 290-292.  
HEW-NIH (Only on Loan)  
2-32-68

The Extermination of Ticks by Chinese Medicine: A Preliminary Report, by T. M. Ch'en.  
CHINESE, per, Nat Med J China, Vol 43, No 6, 1957, pp 451-452.  
HEW-NIH (Only on Loan)  
2-33-68

A Case of Tick Infestation in the Anus of the Human Body, by P. H. Chang.  
CHINESE, per, Nat Med J China, Vol 44, No 3, 1958, pp 304-305.  
HEW-NIH (Only on Loan)  
2-31-68

Ionisation Radiation Induced Death, by Pao-Han Wang.  
CHINESE, per, Med Sheng Wa Hsueh Pao, Vol 9, No 2, 1963, pp 201-202.  
\*FTD-HT-23-205-68C

Antimicrobial Treatment of Tuberculosis, by E. Jancik, M. Jancikova, 255 pp.  
CZECH, bk, Antimikrobiální léčba tuberkulózy, 1964, pp 1-185. P1000468-V  
FTD-HT-66-565

Laser Beam and the Eyes, by M. Liska, 10 pp.  
CZECH, per, Jahra Mechanika a Optika, Vol 11, Nov 1967, pp 341-344.  
Dept of Navy/MNS 1252

Scientific  
Biological & Medical Sciences (Cont'd)

On Misuse of Nitalin, by F. Jorgensen, et al.  
DANISH, per, Ugeskr Laeg, Vol 123, 1961, pp 1275-1279.  
HEW-NIH  
2-24-68

Abuse of Methylphenidate, by E. Borg.  
DUTCH, per, Nord Med, Vol 65, No 7, 1961, pp 211-213.  
HEW-NIH  
2-5-68

Methylphenidate Narcomania, by K. Noreik.  
DUTCH, per, T Norsk Laegeforen, Vol 80, 1960, p 442.  
HEW-NIH  
2-4-68

Autoradiographic Study with [<sup>3</sup>H] Thymidine on the Duration of Deoxyribonucleic-Acid Synthesis and Its Course per Unit Time in the Intestinal Epithelium and Other Cell Types of the Mouse, by E. Koburg, et al.  
FRENCH, per Biochim Biophys Acta, Vol 61, 1962, pp 229-242.  
HEW-NIH  
2-1-68

Comparative Evaluation of Subjective Effects of Dextroamphetamine, Methylphenidate and Placebo, by L. Tetreault.  
FRENCH, per, Canad Med Assn J, Vol 91, 1964, pp 61-66.  
HEW-NIH  
2-18-68

Non Esterised Fatty Acid in Diabetes: A Comparative Study of Titrimetry and Colorimetry Methods of Rate Determination, by H. Warenbourg.  
FRENCH, per, Clin Chim Acta, Vol 14, 1966, pp 708-710.  
\*Dept of Navy/MNS 1255

Medical Aspects of the Gemini Flights and the Apollo Accident, by L. Tabusse & F. Violette.  
FRENCH, per, Forces Aeriennes Francaises, Vol 21, No 237, 1967, pp 829-834.  
\*NASA TT F-11,439

Effect on Experimental Allergic Encephalomyelitis of a Cytostatic Agent of the Methylhydrazine Group, by F. Georgi, et al.  
FRENCH, per, Italy Physiol Pharmacol Acta, Vol 21, 1963, pp 381-393.  
HEW-NIH  
2-10-68

**Scientific  
Biological & Medical Sciences (Cont'd)**

Notes on the Results of Intradermic Reactions of Viabile, Homologous and Heterologous Lymphocytes in Cancerous Recipients and Controls, by L. Israel, et al.  
FRENCH, per, Path Biol (Paris), Vol 15, No 11/14, 1967, pp 593-595.  
HEW-NIH  
2-7-68

Study on Delayed Tuberculin Hypersensitivity in 130 Cancer Patients. The Effects of B.C.G., by I. Israel, et al.  
FRENCH, per, Path Biol (Paris), Vol 15, No 11/14, 1967, pp 597-601.  
HEW-NIH  
2-12-68

Epidemiological, Clinical, Quasi-Clinical, and Preventive Aspects of Meningococcal Disease Meningococci 1963, by P. Melnotte & J-M. Polignat.  
FRENCH, per, Rev Hyg. et Med. soc., No 1, Jan 1963, pp 45-68.  
\*ACSI J-4517  
ID 2204010568

The Top Secret of Venoms, by R. de la Taille.  
FRENCH, per, Science and Vie, Vol 113, No 604, Jan 1968, pp 50-56.  
\*ACSI J-4497  
ID 2204009968

Effect of Magnets on Dividing Cells, by L. Errera, 9 pp.  
FRENCH, rpt, Societe Royale de Botanique (Brussels) Bulletin, Vol 29, 1890, pp 17-24.  
P911047868  
AEC UCRL-Trans 10177

Distribution and Fate of <sup>86</sup>Rb in Inbred Wistar Rats, by H. Mabilie and J. Martin, 9 pp.  
FRENCH, per, Societe de Biologie et de Ses Filiales. Comptes Rendus des Seances, Vol 155, 1961, pp 561-565.  
P911048068  
AEC UCRL-Trans-10175

Comparative Measurements of Heterophoria After the Methods of Graefe and Polatest, by R. Kern, 10 pp.  
FRENCH, man, Serie Ophthalmological Society, 1967.  
Dept of Navy/NMS 1249A

**Scientific  
Biological & Medical Sciences (Cont'd)**

A Modern Tool of Medical Research: The Institute of Cancerology and Immunogenetics. Involvement of Experimental and Clinical Research; Hyposeptic Conditioning of Animals and Patients, by G. Mathe, et al.  
FRENCH, per, Tech Hosp (Paris), Vol 29, No 237/238, 1965, pp 47-49.  
HEW-NIH  
2-19-68

An Essay on the Role and Functioning of the Triage, by Robert Viallet.  
FRENCH, rpt, Thesis, Lyon, 1945-1946, 79 pp.  
\*Dept of Navy/NMS 1257

The Fusion Frequency in Periodic Stimulation of the Retina by Light or Electric Current, by R. Cords, 27 pp.  
GERMAN, per, Archiv fur Ophthalmologie, Vol 67, 1907, pp 149-161.  
P911048568  
AEC UCRL-Trans-10170

Autoradiographic Investigations of Cell Renewal in the Respiratory Tract, the Tube, the Middle Ear and the External Auditory Meatus, by A. Meyer zum Gottesberge and E. Koburg, 15 pp.  
GERMAN, per, Acta Oto-laryng, Vol 56, 1963, pp 353-361.  
P911048168  
AEC UCRL-Trans-10176

Plant Virology in the United Arab Republic.  
GERMAN, per, Biologia, Vol 22, No 7, 1967.  
ACSI J-3917  
ID 2204058867

The Effect of Minerals Extracted from Sugar Beet Leaves on the Germination of Conidia of the Fungus Cercospora beticola Sacc.  
GERMAN, per, Biologia, Vol 22, No 7, 1967.  
ACSI J-3917  
ID 2204058867

The Kinetic Organization of Lepidoptera Chromosomes, by Hans Bauer, 32 pp.  
GERMAN, per, Chromosoma, Vol 22, 1967, pp 101-125.  
P911043968  
AEC ORNL-TR-1817

Thin Layer Chromatography for Analysis of Thyroid Hormones, by H. Schorn, 6 pp.  
GERMAN, per, Jour Chromatography, Vol 18, 1965, pp 69-75.  
Dept of Navy/NMS 1248

Scientific  
Biological & Medical Sciences (Contd)

Experimental Tests on How the Attack of Reticulitermes Lucidus (Rossi) on Pine Sapwood is Influenced by Microorganisms Naturally Occurring in Fruhstorfer Einheitserde (uniform soil), by W. O. Schulz & M. Riewendt.  
GERMAN, per, Material Und Organismen, Vol 2, No 2, 1967, pp 109-119.  
\*ACSI J-4585  
ID 2204012568

Investigations on the Natural Durability of Bongossi (Lophira alata var. procera) Against Fungi, by T. Hof.  
GERMAN, per, Material Und Organismen, Vol 2, No 2, 1967, pp 121-140.  
\*ACSI J-4585  
ID 2204012568

Critical Observations on Methods of Microbiological Textile Testing, by W. Hausam.  
GERMAN, per, Material Und Organismen, Vol 2, No 2, 1967, pp 153-160.  
\*ACSI J-4585  
ID 2204012568

Some Considerations Concerning Fulminating Concussion of the Brain, by F. Nathan.  
GERMAN, per, Minerva Medicoleg, Vol 25, No 13, 1965, pp 110-116.  
HEW-NIH  
2-26-68

Questions Concerning the Antibiotic Resistance of Microorganisms and the Antibiotic Treatment of Animals and Foods Derived from Animals, by G. Seidel.  
GERMAN, per, Die Nahrung, No 5, 1967, pp 457-464.  
ACSI J-3735  
ID 2204053867

On the Determination of the Lipolytic Activity of Micro-Organisms and its Substrate Dependence, by W. Goldbach.  
GERMAN, per, Die Nahrung, No. 7/8, 1967, pp 761-766.  
\*ACSI J-4527  
ID 220401868

Studies on the Suitability of Synthetic Mustard Oil-Producing Substances for Food Preservation, by F. Baum.  
GERMAN, per, Die Nahrung, No 7/8, 1967, pp 819-824.  
\*ACSI J-4527  
ID 220401868

Scientific  
Biological & Medical Sciences (Contd)

Concerning Some Ascomycetes, Isolated from the Soil, Belonging to the Genera Sporormia, Preussia, and Westerdykella, by J. A. Von Arx, et al.  
GERMAN, per, Persoonia, Vol 4, No 4, 1967, pp 407-415.  
HEW-NIH  
2-23-68

First Aid Measures to be Taken in the Event of Contamination by STL Agents of the Neuroparalytic Type, by A. Andries & I. Popa.  
GERMAN, per, Revista Sanitara Militara, No 62, 1966.  
ACSI J-4432  
ID Incl to IR 2214009267

Oxygen Consumption and Respiratory Functions at High Altitudes, by E. H. Christensen.  
GERMAN, per, Skandinavisches Archiv fur Physiologie, Vol 76, 1937, pp 88-100.  
NASA TT F-11,284

Instrumentation Procedures for the Study of Emissions and Immissions of Organic Compounds, by Dr. Ing. Jurgen Bernert, 15 pp.  
GERMAN, per, Wasser, Luft und Betrieb, No 6, 1966, pp 396, 403-406.  
P500049568-V  
Dept of Navy NIC Tr 2535

Fruit and Vegetables in Cans, Part I., by S. Haag & G. Meischak.  
GERMAN, per, Wissenschaft Und Fortschritt, No 1, 1968, pp 113-116.  
\*ACSI J-4586  
ID 2204012668

Therapy-Determined Changes in Cases of Lukemia, by S. Kobylinski.  
GERMAN, per, Z. Ges Inn Med, Vol 22, No 2, 1967, pp 33-41.  
HEW-NIH  
2-20-68

Far Reaching Forces in Biology and Colloidal Physics, by Gerald Oster.  
GERMAN, per, Zeitschrift fuer Elektrochemie, Vol 55, No 6, Aug 1951.  
\*ACSI J-4462  
ID 2204009168

Scientific  
Biological & Medical Sciences (Contd)

The Second Fundamental Principle in Biology,  
by R. Hassse.  
GERMAN, per, Zeitschrift fuer Elektrochemie,  
Vol 55, No 6, Aug 1951,  
\*ACSI J-4463  
ID 2204009268

The Electric Excitability of the Human Eye  
during Dark Adaptation, by J. D. Archelis  
and J. Merkulow, 58 pp.  
GERMAN, per, Zeitschrift fur Sinnesphysiologie,  
Vol 60, 1930, pp 95-125. P911048268  
AEC UCRL-Trans-10171

The Treatment of Granulating Skin Wounds, by  
H. Wagner.  
GERMAN, per, Zentralblatt fur Chirurgie, No 50,  
12 Dec 1903, pp 1361-1365.  
Dept of Navy NIC tr 2548

On the Steroid Treatment of Hypotensive Shock  
States, by Gyorgy Bodoky and Istvan Kovacs, 6 pp.  
HUNGARIAN, per, Magyar Sebesset, No 15, 1962,  
pp 257-260. P100045868-V  
FTD-HT-23-565-67

Carcinogenesis by Isoniazid, Hydrazine, and  
Hydrazine Derivatives, by C. Biancifiori.  
ITALIAN, per, Ann Fac Med Perugia, Vol 57,  
No 3, 1966, pp 352-359.  
HEW-NIH  
2-3-68

A Rare Observation on Cavernous Angioma of the  
Ovary, by V. Rabbitti and G. Dadola, 6 pp.  
ITALIAN, per, Archiv Ital Patolog i Clin del  
Tumori, Vol 5, 1962, pp 151-163.  
Dept of Navy/NMS 1249

Possibility of Distinguishing Two Modes of  
Liberation of Noradrenalin from the Tissues  
by the Use of Methyl Phenidate, by G. L. Gessa,  
ITALIAN, per, Boll Soc Ital Biol Sper, Vol 39,  
1963, pp 982-983  
HEW-NIH  
2-14-68

Changes in Circulatory and Neuropsychological  
Conditions brought About by Some Psychologi-  
cally Active Drugs under Environmental Hyperbaria,  
by G. Albano, et al.  
ITALIAN, per, Boll Soc Ital Biol Sper, Vol 39,  
1963, pp 2082-2085.  
HEW-NIH  
2-15-68

Scientific  
Biological & Medical Sciences (Contd)

Gas-Chromatographic Research on Blood-Serum  
Fatty Acids during Treatment with Nicotinic  
Acid, by G. Cali.  
ITALIAN, per, Boll Soc Ital Cardiol, Vol 11,  
No 2, 1964, pp 193-196.  
HEW-NIH (Only on Loan)  
2-30-68

Composition of Fatty Acids in the Blood  
Serum of Heart Patients with Cardiac Failure,  
by G. Cali, et al.  
ITALIAN, per, Boll Soc Ital Cardiol, Vol 11,  
No 2, 1964, pp 270-273.  
HEW-NIH (Only on Loan)  
2-29-68

Clinico-Statistical Considerations of 78 Cases  
of Meningitis, by A. Ponzone & E. Madon.  
ITALIAN, per, Giornale Di Malattie Infettive E  
Parassitarie N, 17 June 1965, pp 343-345.  
\*ACSI J-4514  
ID 2204010268

The Possibility of Biological Effects of  
Magnetic Fields at Cellular Levels. The  
Present State of the Problem, by M. Lenzi,  
30 pp  
ITALIAN, per, Med. Aeron e Sp, Vol 19,  
1966, pp 24-44. P911047568  
AEC UCRL-Trans-10183

Treatment of Typhoid Fever with Ampicilline and  
Ampicilline Combined with Chloramphenicol, by  
M. Bisciani.  
ITALIAN, per, Minerva Medica, Vol 57, 1966,  
pp 3749-3755.  
\*Dept of Navy/NMS 1250

The Urinary Excretion of <sup>42</sup>K and <sup>86</sup>Rb by the  
Guinea Pig, by G. C. Mussa, 10 pp.  
ITALIAN, per, Minerva Pediatrica, Vol 14,  
1962, pp 623-626 P911047768  
AEC UCRL-Trans-10179

Infectious Diseases — Epidemic Manifestation of  
Meningococcus Disease in 1962-63, by E. Madon  
& A. Ponzone.  
ITALIAN, per, Minerva Pediatrica, No 17, 14 Apr  
1965, pp 767-771.  
\*ACSI J-4515  
ID 2204010368

Scientific  
Biological & Medical Sciences (Contd)

Meningococcal Meningitis -- Clinico-Statistical Considerations of 115 Cases, by A. Romagnoli & L. Palombi.  
ITALIAN, per, Pediatrics (Napoli), No 72, Jan-Feb 1964, pp 20-27.  
\*ACSI J-4516  
ID 2204010468

A New Selective Isolation Culture Medium for the Pathogenic Vibrio (Modified Nakanishi Culture Medium TCBS Agar Medium), by T. Kobayashi and Seiji Enomoto, 10 pp.  
JAPANESE, rpt  
P500024868  
Dept of Navy NIC Tr 2318

Climatic Conditions of Northern Region and Outbreak Forecast of Rice Blast Disease.  
JAPANESE, per, Agricultural Chemicals, pp 72-75.  
\*ACSI J-4489  
ID 222006466

Control of the Bacterial Leaf Blight by Antibiotics.  
JAPANESE, rpt, Annual Report of National Institute of Agricultural Sciences, 1963, pp 51-53.  
\*ACSI J-4488  
ID Incl to 2253030567

Pathogenicity of Mutants of Piricularia Oryzae and Xanthomonas Oryzae with Different Nutritional Intake.  
JAPANESE, rpt, Annual Report of National Institute of Agricultural Sciences, 1963, pp 54-55.  
\*ACSI J-4488  
ID Incl to 2253030567

Phages of Pathogenic Bacilli of Plant Diseases and Their Utilization.  
JAPANESE, rpt, Annual Report of National Institute of Agricultural Sciences, 1965, \*ACSI J-4487  
ID Incl to 2253030567

The Physicochemical Properties of Saliva, by Tsuneo Yoshinaga, 26 pp.  
JAPANESE, per, Isaku Kenkyu, Vol 35, No 2, Mar 1965, pp 133-142.  
P500026068  
Dept of Navy NIC Tr 2319

Scientific  
Biological & Medical Sciences (Contd)

Effect of Temperature on Radiation Induced Male Sterility in the Silkworm, Bombyx Mori L., by Etsuji Sugai.  
JAPANESE, per, Jap. J. Appl. Ent. Zool., Vol 9, No 4, Dec 1965, pp 266-270. P911067068  
AEC-MSJ-Tr-89

Tests of the "Nakanishi Culture Medium" for the Isolation Culturing of Cholera Bacteria and Pathogenic Halophilic Bacteria, by Toshikazu Kobayashi and Shuji Enomoto, 5 pp.  
JAPANESE, per Modern Media - Special Publication, Vol 9, No 7, July 10, 1963, pp 16-19.  
P500025268  
Dept of Navy NIC Tr 2320

Culture Media for the Cholera Bacteria (From Isolation to Confirmation), by Riichi Sakagaki, 10 pp  
JAPANESE, per, Modern Media - Special Publication, Vol 9, No 7, July 10, 1963.  
P500025468  
Dept of Navy NIC Tr 2320(a)

A Case of Agranulocytosis Showing a Leukemoid Reaction during the Recovery Phase, by M. Ichimaru, et al.  
JAPANESE, per, Naika, Vol 14, 1964, pp 147-152.  
HEW-NIH  
2-27-68

Studies on Maffucci's Syndrome. One Cause of Multiple Haemangioma Accompanied with Dyschondroplasia, by H. Hatano, et al.  
JAPANESE, per, Rinsho Hifuka, Vol 5, No 8, 1963, pp 469-479.  
HEW-NIH  
2-6-68

The Histones of Rice Embryos, by Toshio Tsuchiya.  
JAPANESE, per, Sakagaku, Vol 39, 1967, pp 109-116.  
P911018468  
AEC-LA-Tr-67-87

A Case of Maffucci Syndrome, by H. Mitsuasa, et al.  
JAPANESE, per, Seikai Geka, Vol 17, No 9, 1966, pp 718-724.  
HEW-NIH  
2-22-68



Scientific  
Biological & Medical Sciences (Contd)

The Use of Co Cr Prosthesis in Mandibular Resection, by Yasunobu Uchida & Toshiro Kanai. JAPANESE, per, Tokyo Medical College Journal, Vol 22, Nov 1964, pp 517-524. ACSI J-4338 ID 2204005668

Automatic Injections and their Suitability in Overcoming Poisoning, by J. Wysokowski. POLISH, per, Lekarz Wojskowy, No 12, 1967, pp 1052-1056. \*ACSI J-4526 ID 2204010768

Effect of Physical Fatigue upon the Activity of Blood-Serum Enzymes, by Janusz Hanke. POLISH, per, Medycyna Pracy, Vol 17, 1966, pp 128-133. Dept of Navy NIC tr 2544

Clinical Picture and Diagnosis of Leukemia in Children, by A. Wlodarz. POLISH, per, Pediat Pol, Vol 41, No 11, 1966, pp 1283-1287. HEW-NIH 2-8-68

Chronic Granulocytic Leukemia Transforming Three Times into the Acute Form with an Episode of Leukemic Meningitis. POLISH, per, Pediat Pol, Vol 42, No 3, 1967, pp 345-348. HEW-NIH 2-2-68

Insects Feeding on the Polish Larch (Larix polonica Rac.), by Jan Jerzy Karpinski. POLISH, per, Prace Instytutu Badawczego Leśnictwa, No 265, 1963, pp 3-50. CFSTI TT 66-57021

Brasilian Military Medicine Magazine. PORTUGUESE, per, Revista Brasileira de Medicina Militar, No 1, Jan-Mar 1966, pp 3-5. DIA LN 433-68

Brasilian Pharmaceutical Industries, 12 pp. PORTUGUESE, per, Revista Brasileira de Medicina Militar, No 1, Jan-Mar 1966, pp 166-173. DIA LN 433-68

Biological & Medical Sciences (Contd)

Achievements in Rumanian Cybernetics Research, by Prof. Edmond Nicolae, 4 pp. RUMANIAN, per, Unirea, Bucharest, 29 Dec 67, pp. 1, 3. JPRS 44,433

Improved Medical Care Urgently Needed, 8 pp. RUMANIAN, newspaper, Muncitorul Sanitar, Vol. 19, No. 50, Bucharest, 13 Dec 67, p. 2. JPRS 44,428

Recrudescence of Syphilous Infection in Rumania, by Dr. Al. Mincu, 5 pp. RUMANIAN, per, Viata Medicala, Bucharest, No. 23, 1967, pp. 1635-1639. JPRS 44,441

Recovery of Irradiated Cells and Organisms by Nucleic Acids. SERBO-CROATIAN, rpt, Bulletin of the Boris Kidric Institute of Nuclear Sciences, Vol 17, No 4/A, Supplement, 1966. CFSTI AEC tr 6646/4A

Luminescent Dosimetry. SERBO-CROATIAN, per, Wojnotehnicki Glasnik, No 8, 1967, pp 663-670. \*ACSI J-4436 ID 2204008468

An Experiment on Inhibiting Schizophyllum Commune Fr. Development by Antagonism, by Mihailo Krstic. SERBO-CROATIAN, per, Zastita Bilja, Vol 25, 1954, pp 42-44. CFSTI TT 67-58010

Fifth Meeting of Physician Circuit Directors, PUMAR, December 13-16, 1965, 51 pp. SPANISH, per, V Reunion de Medicos Directores de Circuitos, PUMAR, Dec 1965, pp 4-50. DIA LN 431-68

Protective Goggles Especially for Automobile Drivers Motorcyclists, etc., by Ernest Langenbacher. SWISS, Patent No. 304,872. Dept of Comm Patent Office

Scientific  
Biological & Medical Sciences (Contd)

Health Minister Addresses First DRV  
Conference on Biological Constants,  
by Pham Ngoc Thach, 5 pp.  
VIETNAMESE, newspaper, Y-hoc Thuc-Hanh,  
Hanoi, Nov 67, pp. 2 and 3.  
JPRS 44,501

Summary Report on Biological Constants,  
by Dr. Nguyen Tan Gi Trong, 7 pp.  
VIETNAMESE, newspaper, Y-hoc  
Thuc-Hanh, Hanoi, Nov 67, pp. 5-8.  
JPRS 44,501

Chemistry

Conference on the Industrial Uses of Powerful  
Radiation Sources, Particularly in Chemical  
Processes, by V. I. Sinitsin & G. I. Crafov.  
RUSSIAN, per, Atomnaya Energiya, Vol 8, No 2,  
1960, pp 164-167.  
ACSI J-4152  
ID 2204001568

The Properties of Purified Serratia Marcescens  
DNAase and Its Action on DNK, by  
I. B. Leshchinskaya.  
RUSSIAN, per, Biokhimiya, Vol 32, No 1, 1967,  
pp 93-98.  
\*ACSI J-4597  
ID 2204013068

Soil Microflora in the First Stages of Wood  
Degradation at Experimental Testing Grounds,  
by I. A. Petrenko.  
RUSSIAN, per, Drevesina Yeye Zashchita I Plastiki,  
1967.  
\*ACSI J-4581  
ID 2204012268

Complex Antiseptics Based on Pentachlorophenol,  
by R. E. Fradkova.  
RUSSIAN, per, Drevesina Yeye Zashchita I Plastiki,  
1967, pp 52-63.  
\*ACSI J-4581  
ID 2204012268

Problems in Organizing Pharmaceutical  
Affairs, by Ye. I. Panchenko, 10 pp.  
RUSSIAN, per, Farmatsiya, Vol. 16, No. 5,  
Moscow, Sept-Oct 67, pp. 12-18.  
JPRS 44,618

Scientific  
Chemistry (Contd)

Development of Toxicological Chemistry  
in the USSR, by M.D. Shvaykova and  
A.F. Rubtsov, 14 pp.  
RUSSIAN, per, Farmatsiya, Vol. 16,  
No. 5, Moscow, Sept-Oct 67, pp. 56-65.  
JPRS 44,618

Explosion, by G. I. Pokrovskiy, 168 pp.  
RUSSIAN, bk, Izdatel'stvo "Nedra", 1964  
P911018268  
AEC UCRL-TRANS-10140

Chromatographic Separation of Isomeric Perfluorod-  
chlorobenzenes, by S. V. Vitt & G. A. Berezovskii.  
RUSSIAN, per, Izv. Sib. Old. Akad. Nauk SSSR, Ser.  
Khim. Nauk, No 2, 1966, pp 156-157.  
\*FTD-HT-23-223-68

Effect of Hydrogen on Electrical Resistance of  
Niobium, by V. M. Plotnev, 5 pp.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh  
Zavedeniy, Tsvetnaya Metallurgiya, No 5, 1965,  
pp 113-116. P100048068-V  
FTD-HT-66-556

Concerning Some Radiochemical Reactions of Organic  
Synthesis, by R. V. Dzhagatspanyan & V. I. Zetkin.  
RUSSIAN, per, Khimicheskaya Nauka I Promyshlennost,  
Vol 4, No 6, 1959, pp 761-769.  
\*ACSI J-4582  
ID 2204012368

Equipping the Chemical Industry, by  
S.A. Al'perovich, 14 pp.  
RUSSIAN, journal, Khimicheskaya  
Promyshlennost', No. 12, Moscow,  
1967, pp. 1-6.  
JPRS 44,635

Esters of Allylalkylphosphinic Acids  
and Their Biological Activity, by  
A.I. Razumov et al, 10 pp.  
RUSSIAN, per, Khimiko-Farmatsevtich-  
eskiy Zhurnal, No. 11, Moscow, Medi-  
cina Publishing House, November 1967,  
pp. 41-47.  
JPRS 44,626

Investigations in the Field of  
Fibrous Aerosol Filters, by A.A.  
Kirsh and N.A. Fuks, 9 pp.  
RUSSIAN, per, Kolloidnyy Zhurnal,  
Vol. 29, No. 5, Moscow, Sept-Oct 67,  
pp. 682-686.  
JPRS 44,561

Scientific  
Chemistry (Contd)

Olfactometer O-21 for Comparative Testing of Repellents, by A. A. Potapov.  
RUSSIAN, per, Meditinskaya Parazitologiya i Parazitarnyye Bolezni, pp 69-72.  
\*ACSI J-4529  
ID 2204010968

Composition and Properties of Temperature - Resisting Coatings, by A. A. Appen.  
RUSSIAN, bk, Temperaturoustoychivyye Neorganicheskiye Pokrytiya, Chap 4, 1967, pp 107-194.  
\*ACSI J-4433  
ID 2204008168

Chemistry of Organophosphorous Compounds in the Kazan' School of Organophosphorous Chemists, by A.N. Pudovik and I.M. Aladzheva, 47 pp.  
RUSSIAN, journal, Uspekhi Khimii, Vol. XXXVI, No. 9, Moscow, 1967, pp. 1499-1532.  
JPRS 44,591

Desalination of Salt Water in the USSR, by G.M. Solov'yev, 13 pp.  
RUSSIAN, per, Vodosnabzheniye i Sanitarnaya Tekhnika, No. 12, Moscow, 1967, pp. 13-17.  
JPRS 44,669

Mechanism of Antioxidant Action (on Polymers), by M. B. Neiman.  
RUSSIAN, per, Vsesoyuznaya Khimicheskaya Obshchestvo. Zhurnal im D. I. Mendeleeva, Vol 11, No 3, 1966, pp 247-261.  
\*FTD-HT-23-184-68

Electrochemistry. Electrodeposition of Metals and Alloys, 259 pp.  
RUSSIAN, mono, Vypusk I, 1966.  
\*CFSTI TT 68-50452

Research on Amides and Anhydrides of Phosphorus Acids. XVI. Synthesis and Certain Conversions of Alkyl- and Arylmonothiophosphonic Acid Anhydrides, by V.P. Yevdakov and Ye. I. Alipova, 8 pp.  
RUSSIAN, journal, Zhurnal Obshchey Khimii, Vol 37, No. 12, Moscow, Dec 67, pp. 2701-2706.  
JPRS 44,431

Scientific  
Chemistry (Contd)

N-Aryl(Alkyl)-N'-Ethylene-Fluorodiamides of Thiophosphoric Acid, by N. Ya.Skul'skaya and L.D. Protsenko, 5 pp.  
RUSSIAN, journal, Zhurnal Obshchey Khimii, Vol. 37, No. 12, Moscow, Dec 67, pp. 2724-2726.  
JPRS 44,431

Organic Insectofungicides. CXIV. Acid Chlorides and Aryl Esters of N-Carbalkoxyalkyl-amidomethylthiophosphonic Acid, by N.N. Mel'nikov, et al, 6 pp.  
RUSSIAN, journal, Zhurnal Obshchey Khimii, Vol. 37, No. 12, Moscow, Dec 67, pp. 2760-2763.  
JPRS 44,431

Purification of Sewage Waters Carrying Toxic Chemicals, by B.Ya. Libman and N. Sh. Fuks, 21 pp.  
RUSSIAN, per, Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva imeni D.I. Mendeleeva, Vol. 12, No. 6, Moscow, 1967, pp. 651-656.  
JPRS 44,488

Identification of Poly-Trifluoro-Chloroethylene Thermal Decomposition Product, by Wei-yuan Huang, Ch'ang-ming Hu.  
CHINESE, per, K'o hsueh t'ung pao, Vol 17, No 7, 1966, pp 295-298.  
\*FTD-HT-23-270-68C

The Petrochemical Industries of China, by Shigeru Tsutsumi.  
CHINESE, per, Manufacturing and Technology Engineering Dept., Osaka Univ.  
Dept of Navy NIC tr 2543

NMR and ESR Spectra of Lithium Platelets in LiF, by C. Taupin, 8 pp.  
FRENCH, per, Compt Rend, Ser A and B, No 263, 1966, pp 1617-1620. P911065368-V  
AEC-UCRL-Tr-10151

Influence of Temperature on the Pyrolysis of Calcium Carbonate in an Isothermal Container in a Stream of Nitrogen or Under Constant Vacuum, by J. P. Auffredic & P. Vallet.  
FRENCH, per, Comptes Rendus, Vol 265, Ser C, 1967, pp 329-332.  
\*NASA TT F-11,435

Scientific  
Chemistry (Contd)

The Separation Tube -- Purification of the Light Argon Isotope  $^{36}\text{Ar}$  and Concentration of the Argon Isotope  $^{38}\text{Ar}$  Up to 90% through Use of Auxiliary Gases. by K. Clusius & E. Schumacher.  
FRENCH, per, Helvetica Chimica Acta, Vol 36, No 5, 1953, pp 969-984. P911082468-V  
AEC-MLM-TR 1479

Conditions for Isotopic Enrichment by a Photochemical Reaction, by R. Gilbert, 14 pp.  
FRENCH, per, Journal de Chimie Physique, No 60, 1963, pp 205-208. P911066168-V  
AEC-UCRL-TR-10178

High-Resolution Quantitative Analysis by Filtered Electronic Images, Part I, by A. El Hili, 38 pp.  
FRENCH, per, Journal de Microscopie, No 5, 1966, pp 669-690 P911065968-V  
AEC-UCRL-TR-10184

Future Trends in Chemical Propellants, by M. Barrere & B. Crampel.  
FRENCH, per, ONERA TP 516, 1967.  
\*Dept of Navy/APL/JHU J-114C

Thermal and Chemical Ablation in Hybrid Combustion, by J. -F. Lieberherr.  
FRENCH, per, ONERA TP 517, 1967.  
\*Dept of Navy/APL/JHU J-1141

On the Thermal Decomposition of Calcium Sulfate at Low Temperatures, by J. A. Hedvall and Sven Nordengren, 13 pp.  
GERMAN, per, Acta Polytechnica, Chem. Met. Ser., Vol 4, No 7, 1955, pp 3-18. P911040068  
AEC ORNL-TR-1679

Study of Peptide Structures (By Means of the Phenylisothiocyanate II). On the Usage of the Absorption Microchromatography Regarding Thin Layers of Phenylthiohydantoins, by E. Cherbuliez.  
GERMAN, per, Helvetica Chimica Acta, Vol 43, No 229, 1960, pp 1871-1873.  
NASA TT F-11,425

Polyoxides of Four and Seven Valent Technetium with Alkaline Earths, by Miltiades Wassilopoulos.  
GERMAN, rpt, Kernforschungszentrum Karlsruhe, KFK-341, Jul 1965, 67 pp.  
P911065168  
AEC-ANL-TR-546

Scientific  
Chemistry (Contd)

Investigations for the Selection of Suitable Fungi for Testing the Mould Resistance of Materials, by W. Kerner-Gang.  
GERMAN, per, Material Und Organismen, No 1, 1965, pp 35-74.  
\*ACSI J-4567  
ID 2204011968

Investigations on the Corrosion of Iron by  $\text{H}_2$  and  $\text{CO}_2$  Producing Bacteria, by H. J. Frenzel.  
GERMAN, per, Material Und Organismen, No 1, 1965, pp 75-80.  
\*ACSI J-4567  
ID 2204011968

On the Influence of Various Testing Procedures in the Examination of the Resistance Capacity of Textiles Against Cellulose Decomposing Fungi, by O. Walchli.  
GERMAN, per, Material Und Organismen, No 2, 1965, pp 81-94.  
\*ACSI J-4579  
ID 2204012168

Tests on the Influence of Brown Rot Fungi on the Choice and Efficiency of Wood Nourishment by Termites, by G. Becker.  
GERMAN, per, Material Und Organismen, No 2, 1965, pp 95-156.  
\*ACSI J-4579  
ID 2204012168

Considerations in Selecting a Method for Determining Trace Constituents, by H. Schueller, 10 pp.  
GERMAN, per, Microchimica Acta, No 4/5, 1966, pp 742-750. P911065868-V  
AEC-LB-G-2584

Microtitrations with Ethylenediaminetetraacetic Acid Part XII - Determination of Gallium, by H. Flaschka and H. Abdine, 20 pp.  
GERMAN, per, Mikrochim. Acta, Vol 6, 1954, pp 657-667. P911042968  
AEC UCRL-TRANS-10161

A New Color Reaction for Oxalic Dihydraside, by G. Nilsson.  
GERMAN, per, Zeitschrift Fur Analytische Chemie, Vol 153, No 3, 1956, pp 161-165.  
\*ACSI J-4577  
ID 2204012168

Scientific  
Chemistry (Contd)

The Magnesium-Zirconium Phase Diagram,  
by F. Sauerwald, 18 pp.  
GERMAN, per, Z. Anorg. Allg. Chem., Vol 255,  
1947, pp 212-220. P911043168  
AEC UCRL-TRANS-10160

Theory of Diffusion Potential and Ion Trans-  
portation in a Free Solution and Charged  
Membrane, by R. Schlögl.  
GERMAN, per, Zeitschrift fuer Elektrochemie,  
Vol 58, 1954.  
\*ACSI J-4461  
ID 2204009068

Investigation of the Structure of Urea Inclusion  
Compounds, by H. U. Lenne.  
GERMAN, per, Zeitschrift Fur Kristallographie,  
Vol 115, No 3/4, Aug 1961, pp 297-302.  
ACSI J-3861  
ID 2204057067

The Dependence of Photochemical Ozone  
Formation on Temperature, by A. Eucken and  
Patat, 32 pp.  
GERMAN, per, Zeitschrift fur Physikalische  
Chemie, Abt. B, Vol 33, 1936, pp 459-474.  
P911046768  
AEC UCRL-Trans-10189

Electrochemical Measurement of Oxygen Diffusion  
in Metals at High Temperatures, by H. Rickert  
and R. Steiner, 14 pp.  
GERMAN, per, Zeitschrift fur Physikalische Chemie  
Neue Folge, Vol 49, No 3/4, 1956, pp 127-137.  
P911017268  
AEC-NRC-TT-1295

The Determination of Transport Numbers in the  
Melts of Ionic Crystals, by I. Inzelt &  
S. Lengyel.  
HUNGARIAN, per, Magyar Kemiai Folyoirat, Vol 64,  
1958, pp 282-284.  
AEC-BNL-Tr-150 P911341767

Emulsification of Furfuryl Alcohol-Water-Acid  
Catalyst System, by A. Taurus and K. Takano,  
17 pp.  
JAPANESE, per, Kogyo Kagaku Zasshi, No 58,  
1955, pp 1008-1012. P911017768  
AEC-LA-Tr-67-108

Scientific  
Chemistry (Contd)

Solvent Effects in Reactions of Pyridine and  
Dodecyl Bromide.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 68,  
No 3, 1965, pp 504-506.  
ACSI J-4281  
ID 2204003468

The Rate of Quaternization of Pyridine with  
Dodecyl Bromide in Hydroxylic Solvents, by  
K. Murai & C. Kimura.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 68,  
No 11, 1965, pp 2093-2096.  
ACSI J-4280  
ID 2204003368

Condensation Products of Furfuryl Alcohol (VII)<sup>1</sup>  
-- Infrared Absorption Spectra of Furan Deri-  
vatives, by K. Takano.  
JAPANESE, per, Nippon Kagaku Zasshi, No 82, 1961,  
pp 373-376.  
P911017868  
AEC-LA-Tr-67-107

Reactions Between Cyanocobalt (II) Complex and  
 $\alpha$ -Amino Acids, by Tetsumi Suzuki & Takao Kwan.  
JAPANESE, per, Nippon Kagaku Zasshi, Vol 88,  
No 4, 1967, pp 395-400. P911081768-V  
AEC-BNL-Tr-183

Use of Krypton-85 Radiation Source for Chemical  
Reaction in Liquid Phase, by Tomomichi Kasamatsu  
& Norikatsu Otsuka.  
JAPANESE, per, Oyo Buturi (Tokyo), Vol 35, No 6,  
June 1966, pp 423-429.  
AEC-NSJ-Tr-92 P911066868-V

Studies on Separation of Fission Product by  
Flotation Method -- Separation of <sup>137</sup>Cs --,  
by Yoshio Koyanaka.  
JAPANESE, per, Radioisotopes (Tokyo), Vol 15,  
No 2, Mar 1966, pp 77-82.  
AEC-NSJ-Tr-90 P911066968-V

Method of Determining Free Carbon in Boron  
Carbide. Determination of Impurities in Boron  
Carbide (Part 1), by Saburo Kitahara,  
Hiromasa Asahara, 10 pp.  
JAPANESE, per, Rikagaku Kenkyusho Hokoku,  
Vol 34, 1958, pp 339-343. P911044768  
AEC ORNL-TR-1778

Scientific  
Chemistry (Contd)

Research and Development Organization  
in the Chemical Industry, by Konstanty  
Laidler, 10 pp.  
POLISH, per, Przemysł Chemiczny,  
Warsaw, No. 12, Dec 67, pp. 697-7000.  
JPRS 44,577

The Fungicidal Action of Certain Synthesized  
Substances, by Gh. Miron and Gh. Ripeanu,  
RUMANIAN, per, Comunicările Academiei  
Republicii Populare Române, 1961, pp 241-  
246.  
\*ACSI J-4457  
ID 2204008768

Progress and Prospects of the  
Chemical Industry at the Start of  
1968, by C. Mandalopol, 7 pp.  
RUMANIAN, per, Revista de Chimie,  
No. 1, Bucharest, Jan 68, pp. 1-2.  
JPRS 44,673

Earth Science & Oceanography

Gas Well Construction in Uzbekistan, by  
S.M. Gamzatov et al, 6 pp.  
RUSSIAN, journal, Gazovaya Promyshlennost',  
Moscow, No. 11, 1967, pp. 21-24.  
JPRS 44,451

Fundamental Achievements in the Development  
of Underground Gas Reservoirs, by V.N.Raaben,  
7 pp.  
RUSSIAN, journal, Gazovaya Promyshlennost',  
Moscow, No. 11, 1967, pp. 32-35.  
JPRS 44,451

Metric Instability of Aerial Films, by T. P.  
Budylova and Yu. M. Fomin, 13 pp.  
RUSSIAN, per, Geodesiya i Kartografiya, No 6,  
1965, pp 43-51. P100046168-V  
FTD-HT-67-140

Photo Interpreting Device, by Ye. A. Osipov.  
RUSSIAN, per, Geodesiya i Kartografiya, No 3,  
1966, pp 50-52.  
\*FTD-HT-23-195-68

Scientific  
Earth Science & Oceanography (Contd)

Compilation of Photointerpretation Keys, by E.  
R. Malov.  
RUSSIAN, per, Geodesiya i Kartografiya, No 3,  
1966, pp 52-55.  
\*FTD-HT-23-195-68

An Automatic Method for Creating a Mathematical  
Basis for Maps, by A. I. Martynenko.  
RUSSIAN, per, Geodesiya i Kartografiya, No 1,  
1966, pp 57-67.  
\*FTD-MT-24-62-68

Soviet Aerial Photography and Other Topographic,  
Geodetic and Cartographic Surveys in Antarctica,  
by B. V. Dubovskoy.  
RUSSIAN, per, Geodesiya i Kartografiya, No 6,  
1966, pp 51-61.  
\*FTD-MT-24-61-68

Some Data on the Structure of the Upper Mantle  
of the Earth and General Scheme of Isostasy, by  
G. Z. Gurariy and I. A. Soloviyeva.  
RUSSIAN, rpt, International Geological Congress,  
XIII Session, Reports of Soviet Geologists,  
Problem 12 Isostasy, 1964, pp 15-35.  
ACIC TC-2176

Structure of the Earth's Crust in the Arctic,  
by R. M. Dement'skaya.  
RUSSIAN, rpt, International Geological Congress,  
XIII Session, 1964, Reports of Soviet Geologists,  
Problem 16, Geology of the Ocean and Sea Bottoms,  
1964, pp 114-121.  
ACIC TC-1283

A Short Course of General Soil Science, by P.  
S. Kossovich, 223 pp.  
RUSSIAN, bk, Kratkii Kurs Obshchego Pochvovedeniya,  
1916.  
CFSTI TT 67-51278

Gravimetric Investigations in the Region of  
Kuril-Kamohatka Trench and the Northwestern  
Pacific in 1958, by V. A. Gladun  
RUSSIAN, per, Morskoye Gravimetricheskoye  
Issledovaniya, Issue 2, 1958-1960, pp 77-85.  
ACIC TC-1274

Analysis of Ice Drift by the Watanabe Method,  
by V. L. Tsurikov, 7 pp.  
RUSSIAN, per, Okeanologiya, No 5, 1964, pp 904-  
907. P911042268  
ABC-UCRL-Tr-10156

Scientific  
Earth Science & Oceanography (Contd)

Biosphere, Hypergenesis, Soil, by A. A. Yarilov,  
25 pp.  
RUSSIAN, per, Pochvovedenie, No 8, 1937.  
CFSTI TT 67-51284

The Role of Weathering in the Development of  
Soil Profile, and the Categories of Soil  
Material, by V. M. Fridland, 14 pp.  
RUSSIAN, per, Pochvovedenie, No 12, 1955.  
CFSTI TT 67-51277

Collection of Precipitation from  
Bitumen-Sand Paved Areas, by Sh.M.  
Annamuradov, 10 pp.  
RUSSIAN, per, Problemy Osvoeniya  
Pustyn', Academy of Sciences Turkmen  
SSR, Vol. I, No. 1, 1967, pp. 51-56.  
JPRS 44.638

Utilization of the Complete Vertical Gradient  
of Gravity in Determining the Depth to the  
Origins of Gravity Anomalies, by V. M. Berezkin.  
RUSSIAN, per, Razvedochnaya Geofizika, No 18,  
1967, pp 69-79.  
ACIC TC-1344

Concerning Some Problems in the Measurement of  
Radiation Balance at the Surface of the Earth,  
by M. A. Sulev.  
RUSSIAN, per, Sbornik Rabot Tallinskoy Gmo,  
No 3, 1965, pp 85-94.  
ACSI J-3880  
ID 2204057567

Mineral Wealth of Belorussia, by G. Bogomolov  
and B. Bondarenko, 6 pp.  
RUSSIAN, newspaper, Sovetskaya Belorussiya,  
Minsk, 19 Jan 68, pp. 2-3.  
JPRS 44,454

Formation of an Electromagnetic Field  
and Its Use For Solving Problems in  
Structural Geology, by L.L. Van'yan,  
130 pp.  
RUSSIAN, monograph, Stanovleniye  
Elektromagnitnogo Polya i Yego Ispol'-  
zovaniye dlya Resheniya Zadach Struk-  
turnoy Geologii, Novosibirsk, Nauka  
Publishing House, 1966, pp. 1-103.  
JPRS 44,637

Surface Roughness and Methods for Measuring It,  
by A. I. Kartashev.  
RUSSIAN, per, Publishing House of the State  
Committee on Standards, Moscow, 1964, pp 1-95.  
Dept of Navy NOO Contract Tr 2

Scientific  
Earth Science & Oceanography (Contd)

Chemistry of the Pacific Ocean, by V. G. Kort.  
RUSSIAN, per, Tikhyy Okean, Khimiya Tikhogo  
Okeana, Institut Okeanologii, Moscow, Vol III,  
1966, pp 5-358.  
Dept of Navy NOO Contract Tr 1

Vertical Structure of Water and General Features  
of Water Circulation in the Black Sea, by  
V. P. Novitskiy.  
RUSSIAN, per, Vertikal'noye Stroeniye Vodnoy  
Tolshchi i Obshchiye Cherty Tsirkulyatsii Vod  
Chernogo Morya, Trudy AzherNIRO, Vol 23, 1964,  
pp 3-22.  
\*Dept of Navy NOO tr 405

Properties of Water Dynamics in the Southeastern  
Black Sea and the Distribution of Oceanographic  
Elements, by V. A. Bibik.  
RUSSIAN, per, Osobennosti Dinamiki Vod Yugo-  
Vostochnoy Chasti Chernogo Morya i Raspredeleniye  
Okeanografi-Cheskikh Elementov, Trudy AzherNIRO,  
Vol 23, 1964, pp 23-32.  
\*Dept of Navy NOO tr 406

The Method of Studying Internal Waves in the  
Black Sea, by Ya. K. Gololobov.  
RUSSIAN, per, K Metodike Izucheniya Vnutrennikh  
Voln V Chernom Morye, Trudy AzherNIRO, Vol 23,  
1964, pp 49-54.  
\*Dept of Navy NOO tr 408

Distribution of Snow Cover Density Throughout  
the USSR, by V. I. Lipovskaya.  
RUSSIAN, per, Trudy Leningrad, Glavnaya  
geofizicheskaya observatoriya, Prikladnaya  
klimatologiya, No 200, 1966, pp 53-58.  
\*FTD-HT-23-268-68

Dynamic and Static Soundings of Soils in Engin-  
eering Geology, by G. K. Bondarik, 116 pp.  
RUSSIAN, bk, Gosudarstvennyi Geologicheskii  
Komitet SSSR, Trudy Vsesoyuznogo Nauchno-  
Issledovatel'skogo Instituta, Gidrogeologii i  
Inzhenernoi Geologii (Vseringee), New Series  
No 8, 1964.  
CFSTI TT 67-51257

Problems of Scientific-Research  
Institutes in the Development of  
USSR Coal Industry, by L. Ye. Grafov,  
5 pp.  
RUSSIAN, per, Ugol', No. 1, Moscow,  
Jan 68, pp. 14-17.  
JPRS 44,647

Scientific  
Earth Science & Oceanography (Contd)

Operating Experience With Drill  
BSSH-1m In Boring Inclined Holes  
at Kuzbass Open Pits, by N. Ya.  
Repin, 5 pp.  
RUSSIAN, per, Ugol', No. 1, Moscow,  
Jan 68, pp. 40-42.  
JPRS 44,647

Mine Investigations of the IMK Stopping  
Complex, by V.L. Popov, et al, 8 pp.  
RUSSIAN, per, Ugol', No. 1, Moscow,  
Jan 68, pp. 50-53.  
JPRS 44,647

A Device for Semiautomatically Charting a Profile  
of the Earth's Surface from Topographic Maps,  
by I. I. Kanatov & V. S. Akent'yev.  
RUSSIAN, Patent No 174377, Class 42.  
\*FTD-HT-23-267-68

First General Assembly and Annual Integrated  
Technical Convention of the Geodetics and Carto-  
graphy Society of China.  
CHINESE, per, Ts'ie Hui Hsueh Pao (Acta Geodetica  
et Cartographica Sinica), Vol 8, No 4, 1965,  
pp 319-322.  
\*FTD-HT-23-187-68C

Geological Interpretation of Certain Gravimetric  
Anomalies of the Tenere (Niger Republic), by P.  
Louis and J. Rechenmann.  
FRENCH, rpt, Comptes-Rendus de l'Academie des  
Sciences a Paris, Vol 263, Series D, 1 Aug 1966,  
pp 476-479.  
ACIC TC-1302

New Gravity Measurements in the Alpes-Maritimes,  
by S. Corron.  
FRENCH, per, Comptes-Rendus de l'Academie des  
Sciences a Paris, Vol 264, Series D, 4 Jan 1967,  
pp 13-16.  
ACIC TC-1303

Some Reactions of Silica in Solution: Formation  
of Clay, by Bernard Siffert.  
FRENCH, bk, Quelques Reactions de la Silice en  
Solution: la Formation des Arvilles, 1962.  
CFSTI TT 67-51286

Survey of Stone and Earth Deposits  
Being Worked in the GDR, by Dr. G.  
Seidel, 6 pp.  
GERMAN, per, Baustoffindustrie, East  
Berlin, No. 1, Jan 68, pp. 24-26.  
JPRS 44,577

Scientific  
Earth Science & Oceanography (Contd)

On the Regional Geological Position of the  
Mountains of Afghanistan, by Daniel Wirtz, 195 pp.  
GERMAN, per, Beitragung der Geologie ab Nord-Ost  
And Zentral Afghanischen, No 1, 1964, pp 5-16;  
19-46; 53-70; 77-89; 153-182; 185-226.  
DIA LN 324-68

The Influence of Aeration on the Destructive  
Effect to the Soil Microflora on Cellulosic  
Textiles in Soil Burial Tests, by O. Walchli.  
GERMAN, per, Material Und Organismen, Vol 2,  
No 2, 1967, pp 85-96.  
\*ACSI J-4585  
ID 2204012568

Investigation of Thermistors, by H. P. Barthelt  
& K. Kugler.  
GERMAN, rpt, Untersuchungen An Thermistoren.  
Deutsche Versuchsanstalt fur Luft-und Raumfahrt,  
Research Rpt No 66-72, Nov 1966, pp 1-73.  
\*Dept of Navy NOO Contract Tr 4

Prospecting, Mining, and Exploiting  
of Wealth, by B. Tsedebsuren, 7 pp.  
MONGOLIAN, per, Ediyn Dzasgiyn  
Asuudal, Ulan Bator, No. 5, Oct 67,  
pp. 38-43.  
JPRS 44,607

Microbiological Characteristic of Soils under  
Three Forest Associations in the Carpathian  
Foothills, by H. Zimny.  
POLISH, per, Folia Forestalia Polonica, No 4,  
Series A, 1960, pp 89-116.  
CFSTI TT 67-56023

The Soils of the Cracow Voivodship, by Michal  
Strzemiński.  
POLISH, per, Przegląd Geograficzny, Vol 26, No 4,  
1954, pp 54-101.  
CFSTI TT 66-57017

The World Gravity Net, by E. E. Baglietto.  
SPANISH, per, Boletín de Informaciones Petro-  
leras, No 345, Jul 1962, pp 772-798.  
\*ACIC TC-1401

Guarani and Portuguese Toponymy in  
Artigas Region, by Anibal Barrios  
Pintos, 6 pp.  
SPANISH, newspaper, El Dia, 28 Jan 68,  
pp. 8-9.  
JPRS 44,606



Scientific  
Earth Science & Oceanography (Contd)

The Problem of the Figure of the Earth: Contribution for its Study. Part 1: the Gravimetric Method, by Antonio Judice.  
SPANISH, rpt, Publicacoes do Sindicato Nacional dos Engenheiros Geografos, No 1, Series 1, 1948, 122 pp.  
ACIC TC-1328

Electronics & Electrical Engineering

A Punched Card Reader, by V. M. Bubel & S. K. Kosobutskiy.  
RUSSIAN, per, AN BSSR. Institut Tekhnicheskoy Kibernetiki. Vychislitel'naya Tekhnika, 1965, pp 159-163.  
P100044668-V  
FTD-MT-24-287-67

Piezoelectric Pressure Transducer, by M. V. Gusev.  
RUSSIAN, per, AN SSSR. Energeticheskoy Institut. Issledovaniya Po Fizicheskoy Gazodinamike, 1966, pp 210-217.  
\*FTD-HT-23-208-68

The Solution of Control Problems by the Statistical Method on Special Purpose Computers, by Yu. S. Val'denberg.  
RUSSIAN, per, AN SSSR. Institut Avtomatiki i Telemekhaniki. In-ta Kibernetiki. Vychislitel'naya Tekhnika V Upravlenii, 1966, pp 452-456.  
\*FTD-HT-23-280-68

High-Speed Core-Diode-Transistor Logic Elements Using Permalloy Tapes, by R. M. Lesnevskiy.  
RUSSIAN, per, AN SSSR. Institut tochnoy mekhaniki i vychislitel'noy tekhniki. Elektronnyye vychislitel'nyye mashiny. Moscow, Magnitno-diodno-transistornyye logicheskiye elementy povyshennogo bystrodeystviya na serdchnikakh iz permalloyevoy lentvy, 1965, pp 1-57.  
\*FTD-HT-23-227-68

Selection of Binary-Decimal Codes for Automatic Digital Measuring Instruments (ADMI) with a Ternary Comparison Device, by V. V. Yefimenko, 15 pp.  
RUSSIAN, per, AN SSSR. Sibirskoye Otdeleniye. Avtomatika, No 5, 1965, pp 50-57. P100046468-V  
FTD-HT-67-150

Scientific  
Electronics & Electrical Engineering (Contd)

Automatic Programming System for the M-20 Computer; Translator from the Address Language, by L. P. Babenko & L. I. Dovgopolaya.  
RUSSIAN, rpt, AN Ukr SSR "Sistema Avtomaticheskogo Programirovaniya dlya Mashiny M-20; Translyator s adresnogo yazyka. Spravochnoye rukovodstvo" Kiev. Naukova dumka, 1965, 153 pp.  
\*FTD-MT-24-90-68

System of Automatic Input of Graphic Information into Computers and Automatic Readers (Experience in Development and Operation), by V. Oborotov, V. Romanov, 7 pp.  
RUSSIAN, bk, Doklady Nauchno-Tekhnicheskogo Soveshchaniya. Avtomatizatsiya Vvoda Pis'mennykh Znakov v Elektronnyye Vychislitel'nyye Mashiny, 1965, pp 90-95. P100047268-V  
FTD-HT-23-782-67

Theory of Ultrasound Absorption by Free Electrons in a Metal in a Quantizing Magnetic Field, Part I, by B. N. Filippov.  
RUSSIAN, per, Fizika Metallov i Metallovedeniye, Vol 23, No 5, 1967, pp 769-785.  
NASA TT F-11,417

Interaction of the Glow Front with a Transverse Magnetic Field in an Electrodynamical Shock Tube, by G. I. Goryaga, A. I. Kokorev, 9 pp.  
RUSSIAN, per, Herald of the Moscow State University, No 4, Jul-Aug 1966, pp 3-8.  
P500025768  
Dept of Navy NIC No 2482

Method of Evaluating the Operation of Masking Systems, by M. V. Ostrovskiy.  
RUSSIAN, per, Geodeziya i Kartografiya, No 6, 1967, pp 68-74.  
ACSI J-3556  
ID 2204049967

Force Action of a Homogeneous Electrical field on a Single Fiber Strand, by A. T. Magi-Zade.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Elektromekhanika, No 1, Jan 1967, pp 21-28.  
\*FTD-MT-24-71-68

Device for Observing Nuclear Magnetic Double Resonance H<sup>1</sup>-P<sup>31</sup> and F<sup>19</sup>-P<sup>31</sup> by Means of Spectrometers with a Frequency of 40 MHz, by V. B. Lebedev & B. I. Ionin.  
RUSSIAN, per, IVUZ. Priborostroyeniye, Vol 10, No 2, 1967, pp 29-33.  
\*FTD-MT-24-89-68

Scientific  
Electronics & Electrical Engineering (Contd)

Calculation of the Magneto-Hydrodynamic Dust Flow with Sectionized Electrodes, by V. A. Kaydalov. RUSSIAN, per, Magnitnaya Gidrodinamika, No 4, 1966, pp 55-61.  
\*FTD-MT-24-65-68

Reliability of the Manufacture of Electronic Computing Machines, by P. P. Masyatsev, 233 pp. RUSSIAN, bk, Nadezhnost' Proizvodstva Elektronno-Vychislitel'nykh Mashin, 1963, pp 1-216.  
PI00363567-V  
FTD-MT-65-514

Correction of Amplitude Spectra Using a Digital Computer, by G. I. Zabiyaikin, V. I. Prikhod'ko, 9 pp. RUSSIAN, rpt, Ob'edinenyy Institut Yadernykh Issledovaniy (Dubna).  
P500024668  
Dept of Navy NIC Tr 2481

Spurious Couplings and Pickups in Highspeed Computers, by V.G. Pekelis and V. Ya. Rimkhes, 6 pp. RUSSIAN, booklet, Parazitnyye Svyazi i Navodki v Bystrykh Vychislitel'nykh ETsVM, Minsk, 1967, pp. 1-105.  
JPRS 44,458

Semiconductor Devices and Their Application, by V. M. Bogachev & I. A. Popov. RUSSIAN, per, Poluprovodnikovyye Pribory i Ikh Primeneniye, Sbornik Statey, No 13, 1965, pp 158-184.  
ACSI J-2713  
ID 2204026067

The Role of Surface and Contact Phenomena in the Operation of Semiconductor Devices, by V. A. Presnov. RUSSIAN, per, Poverkhnosti, i kontaktn. yavleniya v poluprovodnikakh, Tomsk, Tomskiy un't, 1964, pp 5-19.  
\*FTD-MT-24-94-68

Operating Experience with DNEPR-1 Computer in "AVT-2" Installation, by L. A. Karlin. RUSSIAN, per, Pribory i Sistemy Upravleniya, No 1, 1967, pp 29-31.  
\*FTD-MT-23-176-68

Scientific  
Electronics & Electrical Engineering (Contd)

Signals in Direction Finding Systems, by K. Yu. Agranovskiy, 41 pp. RUSSIAN, paper, Radio-Kiberneticheskiye Metody Upravleniya Morskimi Obyektami, Leningrad, 1967, pp. 181-220.  
JPRS 44,470

Noise Control, by K. Yu. Agranovskiy, 48 pp. RUSSIAN, paper, Radio-Kiberneticheskiye Metody Upravleniya Morskimi Ob'ektami, Leningrad, 1967, pp. 221-268.  
JPRS 44,470

Formulating the Design of Electrical Rolling Stock Using Computers, by I. P. Isayev, A. A. Perova, 16 pp. RUSSIAN, bk, Raschet Konstruktsiy Elektro-podvishnogo Sostava na Vychislitel'nykh Mashinakh, 1966, pp 5-17. PI00051268-V  
FTD-MT-24-285-67

Secondary-Signal Control Impulses, Electrical Reactions and Sensitivity of Analyzers, by N. I. Chuprikova. RUSSIAN, bk, Slovo Kak Faktor Upravleniya v Vysshey Nervnoy Deyatel'nosti Cheloveka, 1961, pp 217-252.  
\*NASA TT F-11,432

ODRA-1003 Universal Electronic Digital Computer, by S. Tomashevski. RUSSIAN, per, Sovet ekonomicheskoy vzaimopomoshchi. Postoyannaya komissiya po koordinatsii nauchnykh i tekhnicheskikh issledovaniy. Sredstva i metody mekhanizatsii podgotovki i poiska nauchno-tekhnicheskoy informatsii, inzhenernogo i upravlencheskogo truda, leksii, pročitannyye na vystavke "Inforga-65" v maye-iyune, 1965, pp 167-170.  
\*FTD-MT-23-281-68

An Information and Control System Serviced by Interconnected Computers, by S. R. Buachidze. RUSSIAN, rpt, Tr. Gruz. politekh. in-t, No 1, (99), 1965, pp 95-100.  
\*FTD-MT-23-278-68

Method of Pulse-Potential Diagrams in Selecting Logic Circuits for Digital Devices, by G. P. Mel'nikov. RUSSIAN, rpt, Tr. 6-y Nauchno-Tekhn. Konferentsii po Yadernykh Radiatsion. T. 3. Ch. 4. M. Atomizdat, 1965, pp 26-37.  
\*FTD-MT-23-204-68

Scientific  
Electronics & Electrical Engineering (Contd)

Intermediate Storage with Content-Determined Access, by G. B. Iyubanskiy.  
RUSSIAN, rpt, Tr 6-y Nauchno-Tekhn. Konferentsii po Yadern Radioelektron. T. 3. Ch. 2. M.  
Atomizdat, 1965, pp 44-51.  
\*FTD-HT-23-204-68

Preliminary Processing of Data in an Analog Form, by A. N. Utyushnikov.  
RUSSIAN, rpt, Tr 6-y Nauchno-Tekhn. Konferentsii po Yadern Radioelektron. T. 3. Ch. 2. M.  
Atomizdat, 1965, pp 89-97.  
\*FTD-HT-23-204-68

A Method of Accelerated Digit Processing in Binary-to-Decimal Number Conversion Devices, by V. N. Zamriy.  
RUSSIAN, rpt, Tr 6-y Nauchno-Tekhn. Konferentsii po Yadern Radioelektron. T. 3. Ch. 2. M.  
Atomizdat, 1965, pp 162-170.  
\*FTD-HT-23-173-68

Radio Electronic Complexes aboard Submarines, by V. F. Droblenkov and V. N. Gerasimov, 21 pp.  
RUSSIAN, bk, Ugroza iz Glubini, 1966, pp 67-80.  
P500049668-V  
Dept of Navy NIC Tr 2532

Automatic Recognition of Patterns, by V. S. Fayn, 5 pp.  
RUSSIAN, per, AN SSSR, Vestnik, No 10, 1965, pp 127-129. P100048568-V  
FTD-HT-66-570

Digital Signal-Detection Equipment, by Capt. A.N. Romanov, 8 pp.  
RUSSIAN, per, Vestnik Protivovozdushnoy Oborony, No. 12, Moscow, Dec 67, pp. 74-78.  
JPRS 44,520

The Use of Electronic Digital Computers (EDC) for Designing Analog Computers, by I. B. Vaysman, 18 pp.  
RUSSIAN, bk, Voprosy Teorii i Primeneniya Matematicheskogo Modelirovaniya, 1965, pp 86-101.  
P100051568-V  
FTD-MT-66-137

The "Kiev" Computer (Design and Use), by L. N. Dachevskiy, S. B. Progrebinskiy, 322 pp.  
RUSSIAN, bk, Vychislitel'naya Mashina "Kiev": Proektirovaniye i Eksploataatsiya, 1964, pp 1-324.  
P100049268-V  
FTD-MT-65-592

Scientific  
Electronics & Electrical Engineering (Contd)

Electric Heater for a Gas Stream, V. P. Kharitonov, (Inventor).  
RUSSIAN, Patent No 193628, Class 21.  
\*FTD-HT-23-273-68C

Magnetic Disc Unit, by V. I. Feldman,  
RUSSIAN, Patent No 195500, Class 21a<sup>1</sup>, 37/14.  
\*FTD-HT-23-273-68B

Device for the Transmission and Reception of a Delta-Modulated Data with Error Correction, by G. M. Kozyreva.  
RUSSIAN, Patent No. 196936.  
\*FTD-HT-23-237-68

New Transistorized Digital Computer Produced in Peking.  
CHINESE, per, Jen Min Jih Pao, No 7029, 7 Oct 1967, p 2.  
\*FTD-HT-23-199-68C

Use of the Model 103 Electronic Computer for Calculating the Parallax of Triangulation of the Third and Fourth Classes, by Fu Lu.  
CHINESE, per, Ts'ing hui Hsueh Pao (Acta Geodetica et Cartographica Sinica), Vol 8, No 4, 1965, pp 247-260.  
\*FTD-HT-23-187-68C

Measurement of the Properties of a Tantalum in a Parametric Frequency Multiplier, by J. Pokorny, J. Fikart, 22 pp.  
CZECH, per, Elektrotechnicky Casopis, No 10, 1965, pp 604-619. P100046268-V  
FTD-HT-67-133

The Present Conditions of Maintenance of Electric. CZECH, per, Zelesnici Doprava Atechnika, June 1967, pp 145-147.  
DIA LN 270-68

Wireless Transmission of Electric Power, 4 pp.  
DANISH, per, Elektroteknikeren, Oct 7, 1967, pp 367-368.  
DIA LN 447-68

Teletechnology.  
DANISH, per, Elektroteknikeren, Oct 7, 1967, pp 367-368.  
DIA LN 447-68

Scientific  
Electronics & Electrical Engineering (Contd)

Study of the Oscillation Modes of the  
"M-carcinotron". Part I, by M. de Bennot.  
FRENCH, per, Annales de Radioelectricite,  
Vol 10, 1967, pp 328-343.  
\*Dept of Navy/APL/JHU J-1147

Study of the Oscillation Modes of the  
"M-carcinotron". Part II, by M. de Bennot.  
FRENCH, per, Annales de Radioelectricite,  
Vol 11, 1967, pp 230-238.  
\*Dept of Navy/APL/JHU J-1146

Estimate of Performance in MHD Generator in  
Inhomogeneous Vein, by C. Karr & M. La Porte.  
FRENCH, rpt, Paper Presented at International  
Symposium on Magnetohydrodynamic Electrical Power  
Generators Salzburg, Austria, Paper number  
SM 74/114, 4-8 Jul 1966, 28 pp.  
\*FTD-HT-66-609

Optic Phenomena in Electrical Stimulation  
of the Visual Apparatus, by L. Finkelstein,  
37 pp.  
GERMAN, per, Archiv. fur Psychiatrie, Vol  
26, 1894, pp 867-885. P911048868  
AEC UCRL-Trans-10150

Observations on the Effects of Pressure  
and Galvanic Current on the Dark-Adapted Eye,  
by W. A. Nagel, 9 pp.  
GERMAN, per, Zeitschrift fur Physiologie  
der Sinnersorgane, Vol 34, 1904, pp 285-290.  
P911048668  
AEC UCRL-Trans-10172

Correction of a Contradiction between the  
Electrodynamic Theory and the Theory of  
Relativity of Electromagnetic Masses, by  
Enrico Fermi, 17 pp.  
ITALIAN, per, Nuovo Cimento, No 25, 1923,  
pp 24-32.  
P500049668-V  
Dept of Navy NIC Tr 2531

On the Surface State of Platinum Anode for  
Electrolytic Persulfate Manufacture by I-Ray  
Examination, by Toshio Inoue, 20 pp.  
JAPANESE, per, Danki Kagaku, Vol 25, 1967,  
pp 576-583.  
P911048668  
AEC-BNL-TA-168

Systematic Errors in Problem-Solving on Analog  
Computers and Methods for their Compensation,  
by Z. Szoplinaki.  
POLISH, per, Archiwum automatyki i telemechaniki.  
Vol 9, No 3, 1964, pp 309-322.  
\*FTD-HT-23-264-68C

Scientific  
Electronics & Electrical Engineering (Contd)

Use of Computers in Maritime Transport, by  
Engineer Z. Grausberg, 5 pp.  
POLISH, journal, Technika i Gospodarka  
Morska, Gdynia, No. 12, Dec 67, pp. 533-  
535.  
JPRS 44,447

Importance of Scientific-Technical Informa-  
tion in Ship Repair Work Emphasized, by  
M.Z., 7 pp.  
SERBO-CROATIAN, per, Vojnotehnicki Glasnik,  
No. 12, Belgrade, Dec 67, pp. 1035-1037.  
JPRS 44,440

Energy Conversion (Non-Propulsive)

Innovations in the Operation of  
Electric Power Systems, by K.K.  
Ketner and I.G. Vol'pert, 6 pp.  
RUSSIAN, per, Elektricheskiye Stantsii,  
No. 1, Moscow, Jan 68,  
pp. 1-4.  
JPRS 44,682

Dispatching Service in the Electrical  
Industry, by B.N. Yeganov, 6 pp.  
RUSSIAN, per, Elektricheskiye Stantsii,  
No. 1, Moscow, Jan 68, pp. 73-77.  
JPRS 44,682

Francis Turbines at the Bukhtar-  
minskaya Hydroelectric Power Station,  
by I.I. Shriro, 6 pp.  
RUSSIAN, monthly, Energomashino-  
stroeniye, Leningrad, No. 12,  
Dec 67, pp. 30-32.  
JPRS 44,528

First 380-Kilovolt Power Line in Yugoslavia  
Will Start to Operate in 1970, by Radimir  
Jovanovic, 13 pp.  
CROATIAN, per, Elektroprivreda, Vol XX,  
No. 11-12, Belgrade, Nov-Dec 67, pp. 277-283.  
JPRS 44,484

Development of High-Voltage Transmission  
Network in Slovenia, by Dusan Gregoric,  
2 pp.  
CROATIAN, per, Elektroprivreda, Vol. XX,  
No. 11-12, Belgrade, Nov-Dec 67, pp. 293-  
297  
JPRS 44,484

Scientific  
Energy Conversion (Non-Propulsive) (Contd)

Conversion of Explosive Energy into Electro-magnetic Energy, by Jean Bernard.  
FRENCH, rpt, Commissariat a l'Energie Atomique.  
Bibliography Series No. 85, Mar 1967, 59 pp.  
P911082068-V  
AEC-SC-T 68-1503

Controlled Polarity Pulse Generator.  
GERMAN, Patent No. 1,202,321  
Dept of Comm  
Patent Office

New Plant to Provide Light and Power,  
by Orestes Miranda, 6 pp.  
SPANISH, newspaper, La Cronica,  
Lima, 28 Jan 68, pp. 10-11.  
JPRS 44,559

Materials

Study of the Kinetics of Aging of Molybdenum-Based Alloys, by V. P. Gol'tsev, 7 pp.  
RUSSIAN, per, Akademi Nauk, Belorusskvi SSR.  
Doklady, Vol 10, 1966, pp 385-387. P911041268  
AEC-UCRL-Tr-10162

Liquid Metals, by P. L. Kirillov.  
RUSSIAN, bk, Atomizdat, Moscow, 1967, 444 pp.  
\*NASA TT F-522

Polarization and Rheological Properties of a Sodium Grease, by Yu. F. Delnega & A. V. Dumansku.  
RUSSIAN, per, Dopovidi Akad. Nauk Ukr. SSR,  
1960, pp 926-928.  
\*FTD-HT-23-238-68

Investigating the Electrization and Flow Properties of a Na-lubricant, by Yu. F. Daynega & A. V. Dumans'kyy.  
RUSSIAN, per, Dopovidi Akad. Nauk Ukr. RST.,  
No 7, 1960, pp 928-929.  
\*FTD-HT-23-224-68

A Study of Fluxed Sinter Using a Microprobe, by Z. I. Nekrasov.  
RUSSIAN, per, Inv. AN SSSR, No 5, 1967, pp 125-132.  
BISI 6197

Scientific  
Materials (Contd)

Fracture of Aluminum Alloys in the Solid-Liquid State, by I. I. Novikov & F. S. Novik.  
RUSSIAN, per, AN SSSR, Izvestiya, Metally, No 2,  
1967, pp 93-96.  
\*FTD-HT-23-266-68

Effect of Carbon on the Structure and Strength Characteristics of Niobium and Its Alloys, by I. S. Malashenko.  
RUSSIAN, per, AN SSSR, Izvestiya Metally, No 3,  
1967, pp 159-166.  
\*FTD-HT-23-192-68

Isomorphism in Binary Systems of Divalent Metal Tung-States, by M. I. Tombak.  
RUSSIAN, per, AN SSSR, Izvestiya, Neorganicheskiye Materialy, Vol 3, No 6, 1967, pp 1055-1063.  
\*FTD-HT-23-196-68

Peculiarities of Recrystallization of Alloy K1437B, by N. N. Iapokin.  
UKRAINIAN, per, IVUZ Chernaya Metallurgiya,  
No 8, 1966, pp 152-156.  
\*FTD-HT-23-214-68

Simulation of an Oxygen-Converting Process on a Computer, by D. I. Turkenich and L. A. Alekseev.  
RUSSIAN, per, Inv VUZ Chern Met, No 1, 1967, pp 29-33.  
BISI 5799

The Temperature Field of a Flat Wall of a Continuous-Casting Mold, by P. I. Khristichenko and G. A. Didenko.  
RUSSIAN, per, Invest VUZ Chern Met, No 3, 1967,  
pp 153-157.  
EB 7317

Investigation of the Reactive Banding of the Rolls of a Four-High Stand, by V. P. Polukhin.  
RUSSIAN, per, Inv VUZ Chern Met, No 4, 1967,  
pp 79-83.  
BISI 5696

On the Mechanism of the Inoculation of Steel with Zirconium, by V. S. Kovalenko.  
RUSSIAN, per, Invest VUZ Chern Met, Vol 10, No 4, 1967, pp 93-99.  
EB 7334

Mechanism of the Reaction of Solid Metal Oxides with Carbon, by B. P. Klyutin.  
RUSSIAN, per, Invest VUZ Chern Met, Vol 10, No 10, 1967, pp 64-67.  
EB 7320

Scientific  
Materials (Contd)

Some Special Features of the Reduction of Iron-Ore Pellets, by V. N. Milyutin.  
RUSSIAN, per, Izvest VUZ Chern Met., Vol 10, No 11, 1967, pp 28-34.  
HB 7346

Mass Spectrometric Analysis of Gases in Metals During Extraction by Vacuum Heating, by V. I. Yavoiskii.  
RUSSIAN, per, Izvest VUZ-Chern Met., Vol 10, No 11, 1967, pp 39-45.  
B3 744

How the Driving Rate Changes in Blast Furnaces of Different Volume, by A. I. Bondarenko and M. Ya. Ostroukhov.  
RUSSIAN, per, Izvest VUZ-Chern Met., Vol 10, No 12, 1967, pp 19-23.  
HB 7384

Investigation of the High-Temperature Oxidation of Metals Aluminized by the Circulation Process, by S. N. Fedoseeva.  
RUSSIAN, per, Izvest VUZ-Chern Met., Vol 11, No 11, 1968, pp 147-151.  
HB 7383

Generation of Ruby and Neodymium Glass Rods Excited by Axicon Pumps, by K. I. Krylov.  
RUSSIAN, per, IVUZ. Priborostroyeniye, Vol 10, No 4, 1967, pp 9-11.  
\*FTD-HT-23-197-68

Problem of Fusing-In Tin in Gallium Arsenide, by L. D. Libov and S. S. Maslin, 9 pp.  
RUSSIAN, per, Investiya Vysshikh Uchebnykh Zavedeniy. Tsvetnaya Metallurgiya, No 3, 1965, pp 86-92.  
P100048468-V  
FTD-HT-66-557

An Electrochemical Method of Controlling the Process of Formation of Passive Film on a Tin-plate Surface, by L. P. Khotsak.  
RUSSIAN, rpt, Kazakhstan Branch of the I.P. Bardin Central Scientific-Research Institute of the Ferrous Metal Industry.  
\*BISI 6325

Catalytic Cracking of the Heavy Distillates of Thermocontact Cracking, by Ya. A. Botnikov and B.B. Kaminer, 8 pp.  
RUSSIAN, journal, Khimiya i Tekhnologiya Topliva i Masel, No. 12, Moscow, Dec 67, pp. 1-7.  
JPRS 44,451

Scientific  
Materials (Contd)

The Interaction of Cobalt With Indium, by A. N. Khlaopova.  
RUSSIAN, per, Khimiya Redkikh Elementov, No 1, 1954, pp 115-120.  
\*BISI 6282

On Heating Steel Blanks in a Glass Melt, by G. F. Degtev & O. R. Matveyev.  
RUSSIAN, per, Kuznechno-Shtampovoye Proizvodstvo, No 1, 1966, pp 36-37.  
P100043968-V  
FTD-MT-24-158-67

Thread Rolling Automatic Machine with Flat Dies, Model A2424, by V. P. Bychenko.  
RUSSIAN, per, Kuznechno-Shtampovoye Proizvodstvo, No 1, 1966, pp 45-47.  
P100043968-V  
FTD-MT-24-158-67

Development of New Rolling Processes in the Mechanical Engineering Field, by A. I. Tselikov and M. V. Vasil'chikov.  
RUSSIAN, per, Kuzn -Shtamp Proizvodstvo, Vol 9, No 11, 1967, pp 5-10.  
HB 7350

Streamlining the Material-Technical Supply System, by A. Lebed', 12 pp.  
RUSSIAN, per, Material'no-tekhnicheskoye Snabzheniye, No. 11, Nov 67, pp. 5-11.  
JPRS 44,578

Direct Contracts in Material-Technical Supply, by S. Avdeyev, 15 pp.  
RUSSIAN, per, Material'no-tekhnicheskoye Snabzheniye, No. 11, Moscow, 1967, pp. 54-62.  
JPRS 44,578

Material-Technical Supply in the Belorussian SSR, by L. Gorelik, 7 pp.  
RUSSIAN, per, Material' no-tekhnicheskoye Snabzheniye, No. 11, Moscow, 1967, pp. 73-76.  
JPRS 44,578

Kinetics of Isothermal Transformation of Austenite in Plain Carbon Steels During Induction Heating, by I. N. Kindin and Yu. A. Bashnin.  
RUSSIAN, per, Metallovedeniye i Obrab. Met., No 7, Jul 1958, pp 10-15.  
HB 4275

Scientific  
Materials (Contd)

Physicochemical Investigation of the Alloys of the System Niobium-Tungsten-Molybdenum-Chromium, by D. I. Prokof'ev & I. V. Grum-Grzhimailo. RUSSIAN, per, Svoitsva Primen. Zhoroproch. Splavov, Akad. Nauk SSSR, Inst. Met., 1966, pp 128-131.  
\*FTD-HT-23-272-68

Economically Alloyed Heat-Resistant Alloys of the EP404 and EP454 Brands, by R. F. Khatalakh & I. A. Krasnova. RUSSIAN, per, Svoitsva Primen. Zharaproch. Splavov, Akad. Nauk SSSR, Inst. Met., 1966, pp 205-208.  
\*FTD-HT-23-272-68

Stability of Properties and Coatings during Use, by A. A. Appen. RUSSIAN, bk, Temperaturoustoychivyye Neorganicheskiye Pokrytiya, Chap 7, 1967, pp 209-215.  
\*ACSI J-4434  
ID 22040082-68

Ferromagnetic Resonance and the Faraday Effect in Some Ferrites with a Spinel and Garnet Structure, by V. F. Belov and A. M. Nechushkin, 6 pp. RUSSIAN, per, Institut Neftekhimicheskoy i Gazovoy Promyshlennosti. Trudy, No 52, 1964, pp 133-135.  
F100049068-V  
FTD-HT-67-165

Extrusion of Metal with Independent Motion of Container, by Ya. M. Okhrimenko & V. L. Berezhnoy. RUSSIAN, per, Tsvetnyye metally, No 5, 1967, pp 76-79.  
\*FTD-HT-23-279-68

Water-Cooled Dies for Metal Extrusion, by A. I. Baturin. RUSSIAN, per, Tsvetnyye metally, No 5, 1967, pp 79-81.  
\*FTD-HT-23-279-68

Effect which Viscosity, Temperature and the Physicochemical Nature of the Solvent Have on Operational Effectiveness of Surface-Active Agents During Ultrasonic Machining of Metals, by N. V. Kurochkin & V. I. Likhtman. RUSSIAN, rpt, Uch. zap. Orlovsk. gos. ped. in-t., No 33, 1966, pp 11-20.  
\*FTD-MT-24-93-68

Scientific  
Materials (Contd)

Influence of Heat Treatment Conditions Upon the Anisotropy of the Properties of Tool Steel Sheet, by E. I. Astrov. RUSSIAN, per, Metallovedenie i Obrabotka Metallov, No 9, 1958, pp 33-38.  
HB 4355

Behavior of the Submerged Casting Stream When Filling Molds Under Continuous Casting Conditions, by Yu. N. Yakovlev. RUSSIAN, per, Metallurgiya i Koksokhimiya, No 2, 1965, pp 81-85.  
HB 7218

The Theory of Certain Phenomena in a Paramagnetic Substance that are Dependent on the Spin-Phonon Interaction, by B. I. Kochelayev, 30 pp. RUSSIAN, bk, Paramagnitnyy Resonans, 1964, pp 78-97.  
F100048368-V  
FTD-HT-66-567

Use of Polymer Materials in Structures Operating Under Load, by P. M. Kozlov. RUSSIAN, bk, Primeneniye polimernykh materialov v konstruktivnykh, rabotayushchikh pod nagruzkoy, Moscow, Izd-vo "Khimiya", 1966, 361 pp.  
\*FTD-HT-23-277-68C

Reduced Concentration Oxygen Used in Open Hearth Furnaces for Steel Smelting, by M. Ya. Medzhiboshkiy, 5 pp. RUSSIAN, newspaper, Rabochaya Gazeta, Kiev, 20 Jan 68, p. 3.  
JPRS 44,453

Physical Processes in the Final Stage of Breakdown of Solid Dielectrics, by V. I. Obukhov. RUSSIAN, per, Sb. Probov Dielektrikov I Poluprovodnikov, 1964, pp 195-197.  
F100044468-V  
FTD-MT-24-148-67

Requirements for Ship Steel Imposed by the Register of Shipping of the USSR, by I. P. Boyarintsev, 10 pp. RUSSIAN, per, Sudostroyeniya, Leningrad, No. 12, Dec 67, pp. 38-41.  
JPRS 44,461

Effect of Deformation and Tempering on Internal Friction of Patented Wire, by V. S. Grachev and V. Ya. Zubov. RUSSIAN, rpt, Paper from: Vnutren Trebie v Metal-lakh i Splavakh. Nauka, Moscow, 1966, pp 138-142.  
\*RBI 6290

Scientific  
Materials (Contd)

Evaluation of the Efficiency of Oil Additives in Diesel Locomotives, by V. V. Vasil'yeva. RUSSIAN, rpt, Vsesoyuznoye Soveshchaniye po Khimii i Primeneniyu Prisadok k Maslam i Toplivam, 2d, 1966, Prisadki k Maslam; Trudy Soveshchaniya, Izd-vo Khimiya, 1966, pp 324-328.

\*FTD-HT-23-216-68

Evaluation of the Operational Stability of Detergent Oils by the "Piston Series" Method, by K. K. Papok.

RUSSIAN, rpt, Vsesoyuznoye Soveshchaniye po Khimii i Primeneniyu Prisadok k Maslam i Toplivam, 2d, 1966, Prisadki k Maslam; Trudy Soveshchaniya, Izd-vo Khimiya, 1966, pp 328-335.

\*FTD-HT-23-216-68

Changes in the Properties of Different Classes of Lubricating Oils With Storage and an Evaluation of Their Purity, by K. K. Papok.

RUSSIAN, rpt, Vsesoyuznoye Soveshchaniye po Khimii i Primeneniyu Prisadok k Maslam i Trudy Soveshchaniya, 1966, pp 336-341.

\*FTD-HT-23-216-68

Production of Protective Motor Oils, by V. S. Iuneva.

RUSSIAN, rpt, Vsesoyuznoye Soveshchaniye po Khimii i Primeneniyu Prisadok k Maslam i Toplivam, 2d, 1966, Prisadki k Maslam; Trudy Soveshchaniya, Izd-vo Khimiya, 1966, pp 341-347.

\*FTD-HT-23-216-68

Wear Reducing Properties of Oils with Different Additives During Friction of Certain Anti-friction Alloys and Ferrous Metals, by A. N. Toropshinov.

RUSSIAN, rpt, Vsesoyuznoye Soveshchaniye po Khimii i Primeneniyu Prisadok k Maslam i Toplivam, 2d, 1966, Prisadki k Maslam; Trudy Soveshchaniya, Izd-vo Khimiya, 1966, pp 348-353.

\*FTD-HT-23-216-68

Study of the New Foreign-Make Motor Oil Additives, by K. K. Papok.

RUSSIAN, rpt, Vsesoyuznoye Soveshchaniye po Khimii i Primeneniyu Prisadok k Maslam i Toplivam, 2d, 1966, Prisadki k Maslam; Trudy Soveshchaniya, Izd-vo Khimiya, 1966, pp 353-360.

\*FTD-HT-23-216-68

Scientific  
Materials (Contd)

Welded Steel-Casting Ladle, by P. M. Kichaev and G. A. Dubrovlin. RUSSIAN, per, Vestnik Mashin, Vol 38, No 8, 1958, pp 56-57. BISI 6207

Optical Properties of the Solid Solutions in Zinc and Iron Orthosilicate, by

B. L. Dobrotsvetov, 20 pp.

RUSSIAN, per, Vestnik Moskovskogo Universiteta, Seriya 4, Geologiya, Vol 20, 1965, pp 37-45. P911049868

AEC UCRL-Trans-10165

Formation of Carbide Coatings on Graphite in Liquid Metals and Alloys, by N. S. Gorbunov.

RUSSIAN, per, Vysokotemperaturnyye Pokrytiya, Trudy Seminara Po Zharostoykim Pokrytiyam, 1967, pp 140-145.

\*ACSI J-4565

ID 2204011768

Protective Coatings on Metals.

RUSSIAN, bk, Zaschitnye Pokrytiya na Metallakh No 2, Naukova Dumka, 1968.

Plenum Press

Hydrostatic Bearings in Sodium Pumps, by

N. N. Aristarkhov & Yu. Ye. Kulikov.

RUSSIAN, per, Zhidkiye metally; sbornik statev, Moscow, Atomizdat, 1967, pp 390-402.

\*FTD-MT-24-75-68

Rotational Structure of the Spectrum for the Generation of Hydrogen and Deuterium Molecules, by I. N. Knyazev, 10 pp.

RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, Vol 3, No 6, 1965, pp 510-515. P100048268-V

FTD-HT-66-521.

Infrared Spectra of Silicate Glasses Containing Two Alkali Metals, by T. E. Chebotareva.

RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii, Akad Nauk Belo, Vol 5, No 2, 1966, pp 241-250.

\*FTD-MT-24-64-68

The Problems in Powder Metallurgy, by Dimitur Dimitrov, 9 pp.

BULGARIAN, journal, Ikonomicheska Misul, No. 9, Sofia, Nov 67, pp. 62-69.

JPRS 44,577



Scientific  
Materials (Contd)

Problems in Measurements of Minority Carrier Lifetimes in Silicon Carbide by the Electroluminescence Method, by Yu. Hsiao-tung & Wu. Tao Hsi.  
CHINESE, per, Acta Physica Sinica, Vol 22, No 9, 1966, pp 976-981.  
\*FTD-HT-23-219-68C

Illustration of Metallography. 44 pp.  
CHINESE, mono, Chin hsian t'u pien hsuan chi 1964, Peking, K'o hsiueh ch'u pan she, 1966.  
\*FTD-HT-23-218-68C

Effect of Metallurgical Factors on the Properties of Heat Resistant Nickel-Base Alloys, by Karel Protiva.  
CZECH, per, Hutnicke Listy, No 9, 1966, pp 610-616.  
\*FTD-HT-23-211-68

Effect of Rolling Practice and Non-Uniform Deformation on the Shape of Heavy Plates, by M. Endrle.  
CZECH, per, Huta Listy, No 7, 1967, pp 467-471.  
BISI 6039

Effect of an Increased Oxygen Content Upon the Structure of Rimmed-Steel Ingots, by V. Parma.  
CZECH, per, Hutnicke Listy, Vol 22, No 12, 1967, pp 826-833.  
HB 7375

Heating Cold Ingots, by Z. Volf.  
CZECH, per, Hutník (Prague), Vol 9, No 7, 1959, pp 234-238.  
BISI 6149

Quantities and Compositions of Gases Evolved from a Solidifying Rimmed Steel Ingot, by V. Parma and St. Wildmann.  
CZECH, per, Hutník, Vol 17, No 9, 1967, pp 432-435.  
HB 7368

Changes of Structure and Characteristics of Soft Carbon Steels under Cyclical Stresses Below the Fatigue Limit, by V. Benes, 10 pp.  
CZECH., per, Strojirenstvi, Vol 14, No 3, 1966, pp 191-195.  
NSTIC Tr-1898

Scientific  
Materials (Contd)

The Swelling of Pellets and Its Influence on Blast Furnace Practice, by R. Vidal.  
FRENCH, per, C.D.S. Circ., No 10, 1967, pp 2109-2116.  
\*BISI 6287

Differdange Plant of the Societe Hadir: Elast Furnaces and Burden Preparation, by M. Erpelding.  
FRENCH, per, C.D.S. Circ., No 11, 1967, pp 2463-2478.  
\*BISI 6285

Differdange Plant of the Societe Hadir: Comparison of Operating Results of a Blast Furnace Charged with Strand Sinter of Rotary Furnace Sinter, by A. Faber.  
FRENCH, per, C.D.S. Circ., No 11, 1967, pp 2479-2491.  
\*BISI 6286

Rolling of Rails on a Universal Stand Train, by R. Stambach.  
FRENCH, per, C.D.S. Circ., No 1, 1968, pp 241-255.  
\*BISI 6305

Theoretical Calculation of the Charges for the Basic Bessemer Converter, by P. Dauby.  
FRENCH, per, C.N.R.M., Sep 1965.  
\*BISI 6313

Use of an Analogue Computer in the Steelworks, by Ch van den Hove and P. Dauby.  
FRENCH, per, C.N.R.M., Mar 1967, pp 39-43.  
\*BISI 6312

Precipitation of Helium in an Aluminum-Lithium Alloy, by Viviane Levy and Jacqueline Antolin, 51 pp.  
FRENCH, rpt, CEA-R 2529, July 1964.  
P911014568  
AEC UCRL-TRANS-10135

Effects of Austenitising Temperature on the Ageing Behavior, After Work-Hardening, of Low-Carbon Steels with Small Niobium Additions, by P. Mandry.  
FRENCH, per, Comptes Rend., Vol 262, Ser C, 21 Mar 1966, pp 963-966.  
BISI 5490

Scientific  
Materials (Contd)

Research on Manufacture of Cast Dies for Drop Forging of Steel (Conclusion), by M. Gaucheron. FRENCH, per, Etain Forge, Vol 5, No 25, Nov 1967, pp 29-46.  
\*BISI 6327

Examination of Rolled Alpac/A1-A1<sub>2</sub>O<sub>3</sub> Sintered Materials Application of Brazing to Components of Sintered A1-A1<sub>2</sub>O<sub>3</sub> Materials, by J. Merenguel & Cl. Leymonie. FRENCH, rpt, European Atomic Energy Commission, Euratom, Report No. EUR 274.f., 1963. P911083468-V  
AEC UCRL-Tr-10144

Galvanized Sheet Metal Panels: 1) Protection of Body Sheet Metal Panels by Zinc and Its By-Products; 2) Assembly Methods for Galvanized Sheet Metal Parts, by A. Wahl and A. Chapleur. FRENCH, per, Ingenieurs de l'Automobile, Vol 40, No 11, Nov 1967, pp 561-572.  
\*BISI 6291

Injection of Neutral Gases Through Porous Refractories into the Crucible of Induction Furnaces. Application to Argon Treatment of Steels, by J. Galey. FRENCH, per, J. Four Elect, Aug-Sep 1967, pp 197-205.  
\*BISI 6294

An Analysis of the Economic and Technical Factors, for the Purpose of Selecting a Mode of Transport for use within an Iron and Steelworks. FRENCH, rpt, Paper Presented at the International Steelworks Transport Conference, Edinburgh, Jun 1967, p 54.  
BISI 6060

The Specific Scope for Different Means of Transport Within a Works (With Appendices), by M. Bay. FRENCH, rpt, Paper Presented at the International Steelworks Transport Conference, Edinburgh, Jun 1967, 61 pp.  
BISI 6059

The Role of Quartz in the Development of Pneumoconiosis in Coal Miners, by A. Policard. FRENCH, per, Rev Ind Minerale, Vol 49, Sep 1967, pp 641-648.  
\*BISI 6318

Scientific  
Materials (Contd)

Long-Time Neutral Corrosion Testing of Various Structural Steels in the Atmosphere and in Different Sea and Fresh Waters, Parts I & II, by Henri Baudot & Georges Chaudron. FRENCH, per, Revue de Metallurgie, Vol 43, 1946, pp 1-67.  
Dept of Navy NIC tr 2558

Weights in the Iron and Steel Industry, by J. B. Forey and F. Charpy. FRENCH, per, Rev Met, Vol 63, Nov 1966, pp 921-927.  
BISI 5398

Contribution to the Study of Tempering in Two Heat-Treatable Steels, by M. Jaspart. FRENCH, per, Rev Met, Vol 64, Apr 1967, pp 349-359.  
BISI 5895

Method for Calculating Regenerators and Stoves, by Szczeniowski. FRENCH, per, Rev Met, Vol 64, Oct 1967, pp 809-834.  
\*BISI 6271

Automatic Operation and Study of the Transient Conditions for Two Blast Furnaces Fed with Sinter, by P. Cuillemain. FRENCH, per, Rev Met, Vol 64, Nov 1967, pp 961-986.  
\*BISI 6275

New Prospects for Steel Plants in the Near Future, by J. M. Kindelan and P. Vayssier. FRENCH, per, Rev Met, CENIM, Vol 3, Nov-Dec 1967, pp 489-495.  
\*BISI 6268

Regulation Problems with the Control of Vacuum Arc Furnaces. GERMAN, bk, 10 Nov 1967.  
\*BISI 6262

Oscilloscopic Investigation of Martensite Formation in Iron-Nickel Alloys-Explanation of Anomalous Potentials, by Heinz Kimmich and Ernst Wachtel, 44 pp. GERMAN, per, Arch Eisenhuten, Vol 35, 1964, pp 1193-1202. P911014468  
AEC UCRL-TRANS-10137

Scientific  
Materials (Contd)

Investigations into the Existence Zones of Iron Carbides Using Electron-Microscopy and Electron Diffraction, by H. Schenck.  
GERMAN, per, Arch Eisenh. Vol 37, Apr 1966, pp 341-352.  
BISI 6022

Study on the Nitriding of Pure Iron, by K. Bohnenkamp.  
GERMAN, per, Arch Eisenh. Vol 38, Mar 1967, pp 229-232.  
BISI 6155

Further Contributions to the Knowledge of the Recrystallization of Cold Rolled Iron: The Texture of Iron as Rolled and Its Changes During Relaxation and Recrystallization, by F. Wever and H. Botticher.  
GERMAN, per, Arch Eisenh. Vol 38, Jun 1967, pp 473-478.  
\*BISI 6292

Dynamics of Planetary Rolling Mills, by H. G. Muller.  
GERMAN, per, Arch Eisenh. Vol 38, Jul 1967, pp 519-525.  
\*BISI 6317

Equilibria Between Molten Iron and Slags of the  $FeO-CaO-P_2O_5-MgO$  System at 1600°C, by G. Tromel and W. Flx.  
GERMAN, per, Arch Eisenh. Vol 38, Aug 1967, pp 595-605.  
\*BISI 6293

Reactions Occurring During the Formation of Primary Decaridation Products in Steel. General Discussion of Parts I and II, by H. Straube, G. Kuhnelt.  
GERMAN, per, Arch Eisenh. Vol 38, No 8, 1967, pp 607-615.  
HB 7259-II

Geometry and Kinematics of the Roll Gap in Two-Roll Straightening of Round Bars, by O. Pawalski and R. Fangmeier.  
GERMAN, per, Arch Eisenh. Vol 38, Sep 1967, pp 711-723.  
BISI 6118

Technological Tests on Steel Tubes, by D. Uebing.  
GERMAN, per, Arch Eisenh. Vol 38, Sep 1967, pp 729-734.  
BISI 6079

Scientific  
Materials (Contd)

Possibilities of Forming by Open-Tool Forging, by A. Witte.  
GERMAN, per, Arch Eisenh. Vol 38, Dec 1967, pp 875-880.  
\*BISI 6309

Stresses in the Rod, Straightening Force, and Drive Moment During Straightening of Rods in 2-Roll Straightening Machines, by O. Pawalski and R. Fangmeier.  
GERMAN, per, Arch Eisenh. Vol 38, Dec 1967, pp 887-895.  
\*BISI 6316

Calculation of the Time-Dependent Temperature of Hot Ingot Surfaces During the Time of Contact Between Ingot and Roll, by H. Preisendanz.  
GERMAN, per, Arch Eisenh. Vol 38, Dec 1967, pp 905-913.  
\*BISI 6280

Investigation on the Slag Constitution in Oxygen Top-Blowing Processes Using Pig Iron Rich in Phosphorus, by W. Fix and K. Koch.  
GERMAN, per, Arch Eisenh. Vol 39, Jan 1968, pp 9-22.  
\*BISI 6306

Longitudinal Elongations and Distortions Encountered in Shaping Steel Strip by Rolling, by G. Weimar.  
GERMAN, per, Arch Eisenh. Vol 39, Jan 1968, pp 37-44.  
\*BISI 6272

Hopper Discharging Devices - Stresses, Requirements, Dimensioning, Types, by W. Hoormann and M. Hager.  
GERMAN, per, Aufbereitungs-Technik, No 10, 1967, pp 521-537.  
BISI 6151

Press Piercing Mill for Piercing of Polygonal Billets, by J. -P. Calmes.  
GERMAN, per, Bander Bleche, Vol 8, Oct 1967, pp 664-667.  
BISI 6083

Non-Destructive Testing in the Production of High-Quality Tubes, by K. Fink.  
GERMAN, per, Bander Bleche, Vol 8, No 11, 1967, pp 729-735.  
BISI 6176

Scientific  
Materials (Contd)

Experience with a Continuous Ultrasonic Inspection Installation for Steel Strip, by H. W. Grasshoff and J. Tobolski.  
GERMAN, per, Bander Bleche, Vol 8, No 11, 1967, pp 736-743.  
\*HB 7371

Improvement of Steel Quality by Tap-Degassing, by R. Flessing.  
GERMAN, per, Berg- Hutten Monatsh, Vol 112, No 11, pp 361-371.  
BISI 6226

Fuel and Power Problems in Austrian Iron and Steel Works with Particular Reference to Natural Gas in the Fuel and Power Supply System for Europe as a Whole, by K. Rieder and H. Tichy.  
GERMAN, per, Berg- Hutten Monatsh, Vol 112, No 11, 1967, pp 394-402.  
BISI 6162

Cot-ton Steel.  
GERMAN, per, Deutsche Eisenbahn Technik, May 1967, pp 220-223.  
DIA LN 107-68

Chemically Stable Steels and Alloys Today and in the Future, by R. Oppenheim.  
GERMAN, per, DEW Tech Ber, Vol 7, No 2, 1967, pp 49-63.  
\*BISI 6279

Effect of Nitrogen on Properties of Austenitic Chrome-Nickel and Chrome-Nickel-Molybdenum (Copper) Steels, by K. Bungardt.  
GERMAN, per, DEW Tech Ber, Vol 7, No 2, 1967, pp 71-90.  
\*BISI 6303

Work Hardening of Stainless Chromium and Chromium-Nickel Steels, Their Mechanical and Physical Properties at Normal, Elevated and Low Temperatures and Appropriate Heat Treatments, by K. -H. Kayser.  
GERMAN, per, Draht, Vol 18, Mar 1967, pp 121-137.  
BISI 5840

Tool Steels Used in the Plastic Forming of Screws, Bolts and Nuts, by W. Haufe.  
GERMAN, per, Draht, Vol 18, Aug 1967, pp 624-635.  
BISI 6154

Scientific  
Materials (Contd)

The Scuffing Boundary Load of Steel Spur Gears, by G. Niemann and G. Lechner.  
GERMAN, per, Erdol und Kohle-Erdgas-Petrochemie, Vol 20, Feb 1967, pp 96-106.  
\*BISI 6270

Improvement in Cleanliness of Roller and Ball Bearing Steels by Special Melting Processes, by K. F. Ludemann.  
GERMAN, per, Freiberger Forschungshfte, Series B, No 122, 1966, pp 181-193.  
HB 7198

Clay Substances in Synthetic Moulding Sands and Their Significance in Practice, by R. Fahn.  
GERMAN, per, Giesserei, Vol 53, 22 Dec 1966, pp 869-873.  
BISI 5612

Compression Characteristics of Moulding Sands, by W. Siefert.  
GERMAN, per, Giesserei, Vol 54, 13 Apr 1967, pp 197-207.  
BISI 6163

Desulfurization of Cast Iron by Treatment of Melt with Calcium Carbide, by D. Gleisberg.  
GERMAN, per, Giesserei, Vol 55, No 1, 1968, pp 1-7.  
HB 7380

Metallurgy and Melting Technique of a Water-cooled Hot- Blast Cupola, Part 2 (Concluding), by D. Logothetis.  
GERMAN, per, Giesserei Techn -Wiss. Beihefte, Vol 17, No 1, 1965, pp 37-45.  
HB 6639-II

Study of Fatigue Behaviour with Special Reference to Torsional Stressing, by H. de Leiris.  
GERMAN, per, Hart -Techn Mitt, Vol 22, No 4, 1967, pp 257-261.  
\*BISI 6333

Observations on Surface Boronisation of Steel, Parts 3, 4, 5, by H. Kunst and O. Schaaber.  
GERMAN, per, Hart -Techn Mitt, Vol 22, No 4, 1967, pp 275-292.  
\*BISI 6334

Scientific  
Materials (Contd)

Influence of Case Structure of Case-Hardened Gear Wheels on Susceptibility to Pitting, by C. Rasin. GERMAN, per, Hart-Techn Mitt, Vol 22, No 4, 1967, pp 317-329.  
\*BISI 6328

Development of Mould-Killed Special Deep-Drawing Quality for Thin Sheet and Cold Strip at the Hoesch Works, by H. J. Lehmann. GERMAN, per, Hoesch Ber, Vol 1, No 4, 1966, pp 16-24.  
\*BISO 6310

Improvement in Ultrasonic Testing by use of a Twin Transducer Head, by H. Stroll. GERMAN, per, Material-Prufung, Vol 3, No 12, 1961, pp 448-454.  
HB 5509

Solubility of Iron and Manganese in Magnesium and Magnesium-Aluminum Alloys, by A. Beerwald. GERMAN, per, Metallwirtschaft, Vol 23, 1944, pp 404-407. P911083768-V  
AEC UCRL-Tr-10158

Structure and Industrial Manufacture of Corrosion-Resistant Magnesium-Manganese Alloys, by A. Schneider and H. Stobbe-Scholder, 32 pp. GERMAN, per, Metall, Vol 4, May 1950, pp 178-183. P911043068  
AEC UCRL-TRANS-10157

The Ternary Phase  $Fe_2C_3B_3$  in the Iron-Carbon Diagram, by H. H. Stadelmair and R. A. Gregg. GERMAN, per, Metall, Vol 17, May 1963, pp 412-414.  
BISI 6166

Continuous Casting [of Steel] on Bow-Type Machines Combined with Rolling, by V. A. Shcherkin. GERMAN, per, Neue Hutte, Vol 12, No 10, 1967, pp 591-597.  
HB 7328

The Specific Scope for Different Means of Transport within a Works (with Appendices), by H. Hornig. GERMAN, per, Paper Presented at the International Steelworks Transport Conference, Edinburgh, Jun 1967, p 74.  
BISI 6061

Scientific  
Materials (Contd)

Welding of Mass Particles by Electron Beam, by W. Dietrich and H. D. Kluger. GERMAN, rpt, Paper Presented at Welding Conference, Hanover and Strassburg, Nov 1967.  
\*BISI 6265

High-Efficiency Es-Systems for Evaporizing and Annealing. GERMAN, rpt, Paper Presented at Welding Conference, Nov 1967.  
\*BISI 6263

Construction and Function of a 260 KW Electron Beam Melting Furnace ESP 100/500, by W. Dietrich. GERMAN, rpt, Paper Presented at Welding Conference, Nov 1967.  
\*BISI 6264

Submerged Arc Welding of Low Temperature High Strength Structural Steels Taking into Particular Consideration Welding with Pass and Backing Pass, by J. Degenkolbe and H. H. Behrenbeck. GERMAN, per, Schweissen Schneiden, Vol 19, No 4, 1967, pp 157-165.  
\*BISI 6314

Studies on the Refining Reactions of the Oxygen Top-Blowing Process for High-Phosphorus Pig Iron With Different Manganese Contents, by W. Kohler. GERMAN, per, Stahl Eisen, 23 Feb 1967, pp 195-206.  
\*BISI 6283

Investigations on the Nature and Distribution of Oxide Inclusions in Steels Semi-Killed in Various Ways, by K. Wiek, E. Buchel. GERMAN, per, Stahl und Eisen, Vol 38, No 9, 1967, pp 701-710.  
HB 7279

Atmospheric Corrosion Resistance of Copper-Treated Steel, by K. Daeges. GERMAN, per, Stahl Eisen, Vol 46, 30 Dec 1926, pp 1857-1863.  
\*BISI 6266

The Technical Causes of the Competitive Pressure Upon the German Iron Industry, by H. Schenk. GERMAN, per, Stahl Eisen, Vol 87, 23 Mar 1967, pp 341-352.  
\*BISI 6301

Scientific  
Materials (Contd)

Noise Reduction in a Straightening Shop, Part II,  
by R. Preissler.  
GERMAN, per, Stahl Eisen, Vol 87, 7 Sep 1967,  
pp 1085-1088.  
BISI 6034

Planning and Carrying Out Anti-Noise Measures  
by Industrial Companies, by F. Habel.  
GERMAN, per, Stahl Eisen, Vol 87, 18 Sep 1967,  
pp 1077-1085.  
BISI 5977

The Continuous Casting of Wide Steel Slabs at  
Mannesmann AG. Germany, by H. Schrewe.  
GERMAN, per, Stahl und Eisen, Vol 87, No 22, 1967,  
pp 1372-1375.  
HB 7339

Control of Sinter Mix Moisture Content Using a  
Neutron Surface Probe, by M. Expelding.  
GERMAN, per, Stahl Eisen, Vol 87, 16 Nov 1967,  
pp 1417-1422.  
BISI 6126

Analogue Computer Calculations of Rolling Moment,  
by J. Heidepriem and F. Thielecke.  
GERMAN, per, Stahl Eisen, Vol 87, 30 Nov 1967,  
pp 1482-1488.  
BISI 6184

Increasing the Output of the Pouring Operation  
in a Basic Oxygen Plant by Shortening the Pouring  
Times, by R. Hammer.  
GERMAN, per, Stahl und Eisen, Vol 87, No 25, 1967,  
pp 1539-1543.  
HB 7340

The Importance of Lime Quality in Steelmaking,  
by K. H. Obst and J. Stradtman.  
GERMAN, per, Stahl und Eisen, Vol 87, No 25, 1967,  
pp 1543-1546.  
HB 7348

Investigation of the Load of a 2-Roll Straighten-  
ing Machine, by O. Pawelski and R. Fangmeier.  
GERMAN, per, Stahl Eisen, Vol 87, 28 Dec 1967,  
pp 1577-1585.  
\*BISI 6315

Scientific  
Materials (Contd)

Automatic Process Control of 170-Ton Basic  
Oxygen Furnaces, Two Years Operating Experience,  
by F. J. Hufnagel, W. Dorr.  
GERMAN, per, Stahl und Eisen, Vol 88, No 1, 1968,  
pp 1-5.  
HB 7362

Development of a New Method of Cooling Wire Rod,  
by W. Geitz.  
GERMAN, per, Stahl Eisen, Vol 88, 11 Jan 1968,  
pp 14-21.  
\*BISI 6277

Irradiation of Hot Ingots Up to 250 mm Thick  
During Inspection for Pipe, by J. Kugler.  
GERMAN, per, Stahl Eisen, Vol 88, 11 Jan 1968,  
pp 21-31.  
\*BISI 6335

Investigations on Control Actions of Selected  
Systems in Process Engineering and Heat Tech-  
nology, by H. Busse.  
GERMAN, per, Stahl Eisen, Vol 88, 8 Feb 1968,  
pp 125-134.  
\*BISI 6284

Direct Steelmaking by Reducing Molten Iron Ores  
with Gases, by K. Sauberlich and J. Tischendorf.  
GERMAN, per, Die Technik, Vol 18, Jul 1963,  
pp 464-468.  
BISI 5495

Damage Characteristics of High-Strength Steel,  
by K. Wellinger, H. Gassmann.  
GERMAN, per, VDI Zeitschrift, Vol 108, 1966,  
pp 1535-1542.  
HB 7372

Electrostatic Dust Separation from Fumes, by R.  
Quack.  
GERMAN, per, VGB Mitt., Apr 1967, pp 77-91.  
\*BISI 6302

Influence of Steam and Carbon Dioxide on the  
Oxidation of Iron-Silicon Alloys in Oxygen Be-  
tween 750 and 1050°C, by A. Rahmel and J.  
Tobolski.  
GERMAN, per, Werke Korros., Vol 16, Aug 1965,  
pp 662-676.  
\*BISI 6304

The Anodic and Cathodic Behaviour of Iron in  
Electrolytes Containing Sulphates, by J. Brenet.  
GERMAN, per, Werke Korros., Apr 1966, pp 316-321.  
BISI 5709

Scientific  
Materials (Contd)

The Effect of the Molybdenum Content on the Corrosion of Austenitic Chromium-Nickel Steels in the Active Condition, by G. Herbsleb and W. Schwenk.

GERMAN, per, Werke Korros, Vol 18, Jun 1967, pp 521-529.  
\*BISI 6038

The Diagnosis of Corrosion in a Saturation Column for Synthesis Gas, by V. Cihal and M. Kasper.

GERMAN, per, Werke Korros, Vol 18, No 12, 1967, pp 1027-1032.  
\*BISI 6331

The Behaviour of Some Chromium-Nickel-Molybdenum Steels During Service in the Chemical Industry, by E. Mohr.

GERMAN, per, Werke Korros, Vol 18, No 12, 1967, pp 1037-1042.  
\*BISI 6332

Determination of Small Amounts of Niobium with 4-(2-Pyridylazo) Resorcin and Zirconium with Pyrocatechin-Violet in Steel, by G. Staats and H. Bruck.

GERMAN, per, Z. Analyt. Chemie, Special Reprint 230, Vol 4, 1967, pp 271-276.  
\*BISI 6297

Process for Increasing the Permeability of Metals Toward Hydrogen, by Dr. Albrecht Kussner and Dr. Ewald Wicks, 7 pp.

GERMAN, Patent No 1 154 443, May 12, 1959.  
P911047468  
AEC UCRL-Trans-10180

Metal Inserts in Plastic Parts, by L. Sors.

HUNGARIAN, per, Magyar es Gumi, Vol 4, No 5, 1967, pp 141-144.  
\*FTD-HT-23-171-68

Production Problems Connected with the Surface Quality of Low Carbon, Aluminium Killed Light Steel Sheet for Deep Drawing, by A. Filippini.

ITALIAN, per, Met Ital, No 2, 1967, pp 82-88.  
\*BISI 6322

Steel for Tinplate, by G. Carretti and G. Anelli.

ITALIAN, per, Met Ital, No 2, 1967, pp 96-100.  
\*BISI 6321

Scientific  
Materials (Contd)

Fatigue in Sintered [Powder] Materials, by A. Gallo and F. Utili.

ITALIAN, per, Metallurgia Italiana, Vol 59, No 7, 1967, pp 533-540.  
HB 7281

Ferrous Sulphate and Powders from Red Vapours as Raw Materials for the Production of Pure Iron and of Raw Metals for Special Ferrous Alloys, by G. Rossi and A. Cignolini.

ITALIAN, per, Met Ital, Vol 59, No 7, 1967, pp 551-563.  
\*BISI 6296

Stress in the Oxide Films of Zirconium and Zircaloy-2 During Anodic Oxidation, by Sueo Nomura & Cho Akutsu.

JAPANESE, per, Denki Kagaku (Tokyo), Vol 33, No 10, Oct 1965, pp 723-727.  
AEC-NSJ-Tr-94 P911066668-V

Studies on the Flash Resistance Sintering of Metal Powders, by T. Sakai.

JAPANESE, per, Japan Jnl Soc Powder and Powder Met, Vol 14, Jul 1967, pp 164-173.  
\*BISI 6308

High Nickel Maraging Steel by Powder Metallurgy, by T. Kinoshita.

JAPANESE, per, J. Japan Soc Powder Met, Vol 13, No 5, 1966, pp 228-235.  
BISI 5929

Studies on Alloy-Tin Couple Tests, by Sh Yonesaki.

JAPANESE, per, J Met Fin Soc Japan, Vol 18, No 5, 1967, pp 185-190.  
\*BISI 6323

Mineral Composition and Mechanism of Formation of Scaffolds in the Blast-Furnace Stack, by S. Kondo.

JAPANESE, per, Tetsu to Hagane, Vol 53, No 11, 1967, pp 1173-1176.  
HB 7399

Embrittlement of Steels in Ammonia at High Temperatures and Pressures, by K. Mukawaki.

JAPANESE, per, Tetsu to Hagane, Vol 53, No 11, 1967, pp 1347-1350.  
HB 7321

Measurement of Oxide Content by the Iodine-Methanol Bromine-Ester and Nitric Acid Methods, by K. Marita.

JAPANESE, per, Tetsu-to-Hagane, Vol 53, No 11, 1967, pp 1363-1367.  
\*BISI 6298

Scientific  
Materials (Contd)

Trial Runs in a Pilot Basic Oxygen Furnace.  
Part 2 - Performance of Refractory Lining, by  
J. Grzyb.  
POLISH, per, Prace Rady Naukow - Techn. Huty im  
Lenina, No 15, 1964, pp 83-92.  
HB 6678

Optimum Pouring Temperature of Cast Steel for  
Casting Dies and Forging Dies, by Z. Durnala.  
POLISH, per, Prz Odlew, Vol 16, No 11-12, 1966,  
pp 21-22.  
BISI 5977

Lubricating Properties of Synthetic MoS<sub>2</sub> and a New  
Lubricate WS<sub>2</sub>, by Zdzislaw Has.  
POLISH, per, Przeglad mechaniczny, No 9, 1960,  
pp 244-249.  
\*FTD-HT-23-228-68C

Effect of Physical Characteristics of Paint  
Used in Steel Casting on Its Behaviour, by F.  
L. Cavallante and C. L. Mariotto.  
PORTUGUESE, per, Met ARM, Vol 23, Nov 1967,  
pp 851-862.  
\*BISI 6300

Reduction of Iron Ores in a Shaft Furnace by  
Means of Recycled and Regenerated Gases, by I.  
Tripes and O. Hatarascu.  
RUMANIAN, per, Metalurgia, Vol 19, No 3, 1967,  
pp 130-134.  
HB 7353

Inoculation of Cast Irons with Liquid Steel,  
by J. Jaklovsky.  
RUMANIAN, per, Metalurgia, Vol 19, No 9, 1967,  
pp 509-512.  
HB 7394

The Development of the Rijeka  
Petroleum Refinery, 1882-1966, by  
Alica Otrok, 12 pp.  
SERBO-CROATIAN, journal, Nafta,  
No. 12, Zagreb, Dec 67, pp. 555-560.  
JPRS 44,532

Technological Progresses in the Rijeka  
Refinery Since Its Establishment,  
by Marijan Kolombo and Josip  
Silipetar, 12 pp.  
SERBO-CROATIAN, journal, Nafta,  
No. 12, Zagreb, Dec 67, pp. 563-  
571.  
JPRS 44,532

The Role of the Rijeka Petroleum  
Refinery in the Petroleum Industry  
of Yugoslavia and in the Economy of  
the Adriatic Coastal Zone, by  
Nikola Urevic, 10 pp.  
SERBO-CROATIAN, journal, Nafta,  
No. 12, Zagreb, Dec 67, pp. 619-  
623.  
JPRS 44,532

Scientific  
Materials (Contd)

General Metallurgy of Nonferrous and  
Ferrous Metals from the Viewpoint of Mining,  
by Mirka Bizjak, 25 pp.  
CROATIAN, per, Tehnika, Vol. XXIII, No. 1,  
Belgrade, Jan 68, pp. 37-45.  
JPRS 44,484

General X-Ray Fluorescence Method for the Deter-  
mination of Iron in Minerals, by T. Reistad.  
SWEDISH, per, Jernkon Ann, Vol 151, No 3, 1967,  
pp 216-226.  
BISI 5896

Mathematical Sciences

Problems in the Multiple Processing of Information  
Using Computer Systems, by G. I. Marchuk.  
RUSSIAN, bk, AN SSSR Sibirskoye Otdeleniye,  
Vychislitel'nyy Tsentr, "Voprosy Mul'tiobrabotki  
Informatsii na Vychislitel'nykh Sistemakh" Izd'vo  
"Nauka" Novosibirsk, 1966, 130 pp.  
\*FTD-MT-24-87-68

Convergence and Square Mean Error Estimation in  
Solution of Particular Boundary-Value Problems  
for Elliptic Equations by the Straight-Line  
Method, by N. Abrashin.  
RUSSIAN, per, Doklady Akademii Nauk Belorusskoy  
SSR, Vol 11, No 8, 1967, pp 670-672.  
\*NASA TT F-11,452

A Method of Numerical Integration of the Diffusion  
Equation, by V. K. Saul'ev, 7 pp.  
RUSSIAN, per, Akademiya Nauk, SSSR, Doklady,  
No 115, 1957, pp 1077-1079. P911064168-V  
AEC-UCRL-Tr-10190

Numerical Integration of Parabolic Equations,  
by V. K. Saul'ev, 8 pp.  
RUSSIAN, per, Akademiya Nauk, SSSR, Doklady,  
No 117, 1957, pp 36-39. P911065468-V  
AEC-UCRL-Tr-10191

Methods of Improved Accuracy and of Approxima-  
tions from above and below to Solutions of  
Parabolic Equations, by V. K. Saul'yev, 6 pp.  
RUSSIAN, per, Akademiya Nauk SSSR, Doklady,  
No 118, 1958, pp 1088-1090. P911065568-V  
AEC-UCRL-Tr-10192



Scientific  
Mathematical Sciences (Contd)

Quasilinear Parabolic Equations and Measures in Functional Spaces, by M. I. Freydlin.  
RUSSIAN, per, Funktsional'nyy Analiz i Yego Prilozheniya, Vol 1, No 3, 1967, pp 74-82.  
\*Dept of Navy/APL/JHU J-1148

Measurement of Pulse Distortion in Digital Information Transmission, by K. A. Brusilovskii, 83 pp.  
RUSSIAN, bk, Izmereniya Ispol'sov v Sistemakh Peredachi Diskretnoi Informatsii, 1965.  
CFSTI TT 67-51370

Two-Center Problem of Quantum Mechanics I., by L. I. Ponomarev & T. P. Puzynina.  
RUSSIAN, rpt, Joint Institute for Nuclear Research, No P2-3009, 1966, 27 pp.  
AEC-SC-T-67-0952 P911012668

Two-Center Problem of Quantum Mechanics III. Term Tables, by L. I. Ponomarev & T. P. Puzynina.  
RUSSIAN, rpt, Joint Institute for Nuclear Research, No P4-3175, 1966, 67 pp.  
AEC-SC-T-67-0953 P911013568

Solutions of General Linear Partial Differential Equations Analytic in One Variable, by V. A. Sochneva.  
RUSSIAN, per, VUZ, Izv., Mat., No 2, 1967, pp 67-73.  
Dept of Navy/APL/JHU T-2118

On the Resolvent of a Self-Adjoint Extension of an Elliptic Operator, by V. N. Pivnenko.  
RUSSIAN, per, VUZ, Izv., Mat., No 9(64), 1967, pp 69-74.  
Dept of Navy/APL/JHU T-2112

The Place of Mathematics in the System of the Sciences, by I. A. Akshurin.  
RUSSIAN, per, Metody Matematiki v Sisteme Nauk. Voprosy Filosofii, Vol 21, No 1, 1967, pp 79-90.  
\*FTD-HT-23-181-68

The Problem of Equilibrium of an Elastic Parallelepiped Subjected to Assigned Loads on its Boundaries, by M. M. Filonenko-Borodich.  
RUSSIAN, per, Prikl. Math i Mekh, No 15, 1961, pp 137-148. P911063668-V  
AEC-WAPD-Trans-81

Scientific  
Mathematical Sciences (Contd)

Algorithm Language for Programming Economics and Mathematical Problems. Algorithm Language ALGOL-60, by A. I. Kitov.  
RUSSIAN, bk, Programmirovaniye Informatsionno-logicheskikh Zadach, Moscow, Izd-vo Sovetskoye Radio, Pt 2, Chap 3, 1967, pp 100-188.  
\*FTD-HT-23-230-68C

On Completeness in Hp of a System of Functions, by B. M. Bychkov & V. M. Grober.  
RUSSIAN, per, Sibirskii Mat. Zh., Vol 8, No 4, 1967, pp 942-946.  
Dept of Navy/APL/JHU T-2111

Tables for the Calculation of Matrix Elements of Operators of Atomic Quantities, by R. I. Karaziya & Ya. I. Vizbaraite.  
RUSSIAN, bk, Tablitsy dlya rascheta matrichnykh elementov operatorov atomnykh velichin, 1967.  
P911085568-V  
AEC-ANL-Tr-563

On the Question of Convergence of the Collocation Method, by M. F. Kaspshitskaya & N. I. Tukalevskaya.  
RUSSIAN, per, Ukr. Mat. Zh., Vol 19, No 4, 1967, pp 48-56.  
\*Dept of Navy/APL/JHU J-1152

On the Cauchy Problem for a First-Order Linear Hyperbolic Equation with Operator Coefficients, by E. A. Fadeeva.  
RUSSIAN, per, Uspekhi Mat. Nauk, Vol 22, No 2, 1967, pp 128-130.  
Dept of Navy/APL/JHU T-2114

Inverse Theorems on the Best Approximation of Functions of a Complex Variable, by G. P. Safronova.  
RUSSIAN, per, Leningrad Univ., Vestnik. Ser. Mat., Mekhan. i Astron., No 13, 1966, pp 40-46.  
Dept of Navy/APL/JHU TG 230-T539

Seminars in Mathematics, V. A. Steklov Mathematical Institute, Leningrad, Vol 5: Boundary Value Problems of Mathematical Physics and Related Aspects of Function Theory, Part 1.  
RUSSIAN, bk, Zapiski Nauchnykh Seminarov Leningradskogo Otdeleniya Matematicheskogo Instituta im V. A. Steklova AN SSSR: Kraevye Zadachi Matematicheskoi Fiziki i Smezhnye Voprosy Teorii Funktsii, 1. Nauka 1967.  
PLENUM PRESS

Scientific  
Mathematical Sciences (Contd)

Seminars in Mathematics, V. A. Steklov Mathematical Institute, Leningrad, Vol 6: Kinematic Spaces, by R. I. Pimenov.  
RUSSIAN, bk, Zapiski Nauchnykh Seminarov Leningradskogo Otdeleniya Matematicheskogo Instituta im V. A. Steklova AN SSSR. Prostanstva Kinematicheskogo Tipa, Nauka 1968.  
Plenum Press

Seminars in Mathematics, V. A. Steklov Mathematical Institute, Leningrad, Vol 7: Boundary Value Problems of Mathematical Physics and Related Aspects of Function Theory, Part 2.  
RUSSIAN, bk, Zapiski Nauchnykh Seminarov Leningradskogo Otdeleniya Matematicheskogo Instituta im V. A. Steklova AN SSSR: Kraevye Zadachi Matematicheskoi Fiziki i Smezhnye Voprosy Teorii Funktsii, 2, Nauka 1968.  
Plenum Press

Seminars in Mathematics, V. A. Steklov Mathematical Institute, Leningrad, Vol 8: Studies in Structural Mathematics and Mathematical Logic, Part 2.  
RUSSIAN, bk, Zapiski Nauchnykh Seminarov Leningradskogo Otdeleniya Matematicheskogo Instituta im V. A. Steklova AN SSSR: Issledovaniya po Konstruktivnoi Matematike i Matematicheskoi Logike, 2, Nauka 1968.  
Plenum Press

Algorithms for Planning Parallel Operation of Computer-System Devices, by Nguen Ba Khao.  
RUSSIAN, per, Zhurnal Vychislitel'noy Matematiki i Matematicheskoy Fiziki, Vol 6, No 4, 1966, pp 748-757.  
\*FTD-MT-24-91-68

The Perturbed Galerkin Method and the General Theory of Approximate Methods for Nonlinear Equations, by G. M. Vainikko.  
RUSSIAN, per, Zh. Vychislitel'noi Mat. i Mat. Fiz., Vol 7, No 4, 1967, pp 723-751.  
Dept of Navy/APL/JHU T-2115

Calculation of Dose Derivatives by Monte Carlo for Optimisation of Shape and Composition of Shields, by M. Z. Brainina, L. V. Gerasimov, 8 pp.  
RUSSIAN, per, Zh Vychisl. Mat i Mat Fiz. Vol 7, No 4, 1967, p 953. P911065268  
AEC ORNL-Tr-1834

Scientific  
Mathematical Sciences (Contd)

On the Form Assumed by the Movement Equations of Fluids when Taking into Account the Capillary Forces Caused by Variations of Density which are Considerable but Continuous, and on the Theory of Capillarity in the Hypothesis of a Continuous Variation of Density, by D. J. Korteweg.  
DUTCH, per, Arch. Neer. Sci. Exactes Natur., Vol 6, Ser 2, 1901, pp 1-24. P911063968-V  
AEC-SC-T-67-0956

The Mercure 3 Program: Straight-Line Attenuation in a Three-Dimensional Geometry, by Christian Devillers, 45 pp.  
FRENCH, rpt, CEA-R 3264. P911042068  
AEC ORNL-TR-1812

Determination of a Base for the Proper Function and of the Corresponding Norm for the Boltzmann Integral-Differential Equation at a Given Velocity and in a Spherical Configuration, by Pierre Lafore, 48 pp.  
FRENCH, rpt, Commissariat a L'Energie Atomique, CEA-R 2926, 1965. P911064867-V  
AEC ORNL-Tr-1505

Solving Simplified Equations of a Turbulent Viscous Boundary Layer with an Analog Computer, by Jean Delery, 12 pp.  
FRENCH, per, Rech Aerosp. No 110, 1966, pp 15-18. P911017068  
AEC-SC-T-67-0935

A Symmetrical Treatment of the Test Problem, by Olaf Krafft.  
GERMAN, per, Archiv der Mathematik, Vol 18, Issue #5, 1967.  
\*ACSI J-4556  
ID 2204011568

A Suggestion for the Interpolation of Astrogeodetically Determined Deflections of the Vertical, by S. Heitz.  
GERMAN, rpt, Deutsche Geodatische Kommission bei der Bayerischen Akademie der Wissenschaften, No 55, 1967, 7 pp.  
ACIC TC-1400

On the Analytical Solution of the Energy-Dependent Neutron Transport Equation in S<sub>N</sub>-Formulation, by H. Bauchat, 84 pp.  
GERMAN, rpt, EIR-98. P911013168  
AEC ORNL-TR-1813

Scientific  
Mathematical Sciences (Contd)

Regularity in the Distribution of Errors in Series of Observations, by Ernst Abbe, 28 pp.  
GERMAN, rpt, Gesammelte Abhandlungen, Jena, 1906.  
Dept of Comm  
National Bureau of Standards

The First Hungarian Statistical Publications, by G. Ferenc, 24 pp.  
HUNGARIAN, per, Keleti Karoly Utca 5-7, Budapest II, June 1966, pp 635-648.  
DIA LN 249-68

Mathematics Handbook, by I. N. Bronstejn and K. A. Szemengyajev.  
HUNGARIAN, bk, Matematikai Zsebkönyv. Mernokok és Mernokhallgatók Számára. Mivelt Nép. Trudomanyos és Ismeretterjesztő Kiado, 1955.  
\*FTD-HT-23-178-68C

A Method to Determine the Compton Scattering Angle from its Cumulative Probability in the Monte Carlo Calculation, by Hisao Yamakoshi & Masaya Nakata.  
JAPANESE, per, Sennaku Gijutsu Kenkyujo, Vol 2, No 6, 1965, pp 311-316. P911082368-V  
AEC ORNL-Tr-1857

Problems of Digital Data Storing in Systems for Pattern Recognition, by Vukasin Masnikosa.  
SERBO-CROATIAN, per, Jugoslavenski seminar za regulaciju, mjerenja i automaciju-JUNEMA 10th, Zagreb, zbornik seminara, 1965, pp 175-177.  
\*FTD-HT-23-226-68C

Mechanical, Industrial, Civil & Marine Engineering

Analytical Method for Calculating the Location Parameters of Flat Ejection Charges in Building Rock Dams, by Ye. G. Baranov & Yu. N. Gorin.  
RUSSIAN, rpt, Academy of Sciences of Kirghiz SSR Transactions of the 5th Session of the Scientific Council on the Use of Explosions for National Economy, 1965, pp 286-296. P911082968-V  
AEC UCRI-Tr-10196

Aerodynamic Calculation of the Flow in Axial-Flow Turbo-Machinery, by M. I. Zhukovskiy.  
RUSSIAN, bk, Aerodinamicheskiy Raschet Potoka v Oservich Turbo-Mashinakh. Izd-Vo Mashinostroyeniya, 1967, pp 1-287.  
\*FTD-HT-24-68-68

Scientific  
Mechanical, Industrial, Civil & Marine Engineering(Contd)

Design of Nuclear Plants, 482 pp.  
RUSSIAN, bk, Atomizdat, 1965.  
CFSTI AEC-tr-6722

Operational Reliability of Radio Relay Lines, by D. A. Bumin, 10 pp.  
RUSSIAN, per, Avtomatika, Telemekhanika i Svyaz', No 1, 1966, pp 12-15. P100045768-V  
FTD-HT-67-68

Automation of Designing the Surfaces of Ship Hulls by Computers, by Yu. L. Ketkov.  
RUSSIAN, per, Avtomatizatsiya tekhnologicheskogo proyektirovaniya pri pomoshchi elektronnykh vychislitel'nykh mashin; sbornik statey, Moscow, Izd-Vo Mashinostroyeniya, 1966, pp 55-72.  
\*FTD-HT-24-95-68

The Durability of V-type Truck Diesel Engines during Operation in the Far North, by Yu. Rakhubovskiy.  
RUSSIAN, per, Avtomobil'naya Promyshlennost', No 8, 1966, pp 4-7.  
ACSI J-2733  
ID 2204026267

Thermo-Mechanical Method of Converting Cellulose into a Readily Hydrolizable State, by A. V. Krupnova, V. I. Sharkov.  
RUSSIAN, per, Gidroliznaia i Lesokhimi-cheskaja Promyshlennost', Vol 16, No 3, undated, pp 8-10.  
\*ACSI J-4460  
TD 2204008968

Miscellaneous Improvements in Soviet Rail Service, by B.P. Beshchev, 5 pp.  
RUSSIAN, newspaper, Gudok, Moscow, 1 Jan 68, p. 1.  
JPRS 44,588

Designing of Installation "Tokamak TM-3", by D. P. Ivanov & K. A. Razumova.  
RUSSIAN, per, Institut Atomnoy Energii Im. I V Kurchatova, Moskva, SSSR, 1966, pp 1-16.  
P100045268-V  
FTD-HT-24-88-67

Diagram for Optimum Design of a System of Shocks in Axially Symmetrical Supersonic Diffusers with External Compression, by A. P. Pudovayev, 4 pp.  
RUSSIAN, per, Investiya Vyschikh Dabehnykh Zavedeniy Aviatcionnaya Tekhnika, No 2, 1966, pp 151-153. P100046668-V  
FTD-HT-23-682-67

Axial Compressor Blade Vibrations, by  
F. S. Bedcher.  
RUSSIAN, bk, Kolebaniya i Prochnost Pri  
Peremennykh Napryazheniyakh Moscow, Izd-  
vo "Nauka", 1965, pp 86-102.  
\*ACSI J-4484  
ID 2204009868

Some Problems in the Synthesis of Functionally  
Reliable Discrete Action Automations, by Yu.  
G. Savchenko.  
RUSSIAN, rpt, Konferentsiya po Tekhnicheskoy  
Kibernetike, Yerevan, 1964, Prikladnyye Zadachi  
Tekhnicheskoy Kibernetiki; Materialy Konferentsii.  
Izd-vo Sovetskoye Radio, 1966, pp 115-122.  
\*FTD-HT-23-175-68

Mechanizing the Loading of Blanks of Container  
Bottom in a Furnace and their Unloading from a  
Furnace, by G. P. Tkachenko & V. Ye. Novichenko.  
RUSSIAN, per, Kuznechno-Shtampovoychnoye  
Proizvodstvo, No 1, 1966, pp 38-40.  
P100043968-V  
FTD-MT-24-158-67

Hydromechanical Extrusion of Thin-Wall Tubes,  
by V. I. Zalesskiy & B. S. Vekshin.  
RUSSIAN, per, Kuznechno-shtampovoychnoye  
proizvodstvo, No 4, 1967, pp 1-4.  
\*FTD-HT-23-274-68

Cooling Efficiency of the Perforated Flame Tube  
of a Gas Turbine Combustion Chamber, by  
V. A. Khristich & A. M. Shevchenko.  
RUSSIAN, rpt, L Vestn. Kiyevsk. politekhn. in-ta.  
Ser. teploenerg., No 1, 1964, pp 50-57.  
\*FTD-MT-24-92-68

Blade Machines and Jet Ejector Devices.  
RUSSIAN, rpt, Lopatochnyye Mashiny i Struynyye  
Apparaty, Sbornik Statey, No 2, 1967, pp 1-169.  
\*FTD-MT-24-69-68

The Plan of Overall Mechanization and  
Automation of Construction and  
Installation Work in 1968, 8 pp.  
RUSSIAN, journal, Mekhanizatsiya  
Stroitel'stva, Moscow, No. 1, Jan 68,  
pp. 2-5.  
JPRS 44,526

Some Causes of Loss and Noise in Documentary  
Information Retrieval, by E. F. Skorokhod'ko.  
RUSSIAN, per, Nauchno-tekhnicheskaya Informatsiya,  
No 1, Series 2, 1967, pp 30-34.  
\*FTD-HT-23-275-68

Experimental System for Automatic Translation of  
Material from the American Patent Weekly "Official  
Gazette", by L. G. Kravets.  
RUSSIAN, per, Nauchno-Tekhnicheskaya Informatsiya,  
No 1, Series 2, Jan 1967, pp 35-40.  
\*FTD-HT-23-275-68

Influence of Redundancy on Reliability of  
Systems, by V. V. Naumchenko.  
RUSSIAN, per, Nauchno-Tekhnicheskaya Konferentsiya  
Po Sredstvam Promyshlennoy Telemekhaniki Moscow  
Promyshlennaya Telemekhanika; Materialy Konfer-  
entsii, 1966, pp 1-7.  
P100044968-V  
FTD-MT-24-149-67

Self-Control, Self-Correction, and Self-Repair  
in Telemechanical Devices, by A. N. Radchenko.  
RUSSIAN, per, Nauchno-Tekhnicheskaya Konferentsiya  
Po Sredstvam Promyshlennoy Telemekhaniki Moscow  
Promyshlennaya Telemekhanika; Materialy Konfer-  
entsii, 1966, pp 8-22.  
P100044968-V  
FTD-MT-24-149-67

Polymer Materials in Engineering, Industry and  
Construction, by M. M. Koton.  
RUSSIAN, rpt, Novyye Materialy v Tekhnike i Nauke;  
Proshloye Nastoyashcheye, Budushcheye, Izd-Vo  
Nauka, 1966, pp 170-187.  
\*FTD-HT-23-215-68

Cooling Effectiveness of Shell-Type Gas Turbine  
Blades with Thermal Insulation Coating, by  
Ya. I. Shnee & V. M. Kapinos.  
RUSSIAN, per, Kharkov. Politekhnikheskiy institut.  
Energeticheskoye mashinostroyeniye. Teploobmen i  
gazodinamika, No 3, 1966, pp 92-99.  
\*FTD-HT-23-234-68

Regular Precession of a Free Gyrostat,  
by N. N. Kolesnikov.  
RUSSIAN, per, Prikladnaya Matematika i  
Mekhanika, Vol 30, No 3, 1966, pp 589-593.  
\*ACSI J-4479  
ID 2204009768

Improvement of Construction Work  
Urged, by A.I. Tregubov, 9 pp.  
RUSSIAN, per, Promyshlennoye  
Stroitel'stvo, No. 12, Moscow, 67,  
pp. 2-4.  
JPRS 44,676

Review of Industrial Construction Designs, by I.A. Levin, 8 pp.  
 RUSSIAN, per, Promyshlennoye Stroitel'stvo, No. 12, Moscow, 1967, pp. 5-7.  
 JPRS 44,676

River Transport Successes in Jubilee Year, 6 pp.  
 RUSSIAN, np, Rechnoy Transport, Moscow, No. 12, Dec. 67, pp. 1-2.  
 JPRS 44,588

Vessel Air-Coolers for Fish Meal, by V. F. Smirnov.  
 RUSSIAN, per, Rybnoye Khozyaystvo, Vol. 43, No 11, 1967, pp 69-70.  
 \*Dept of Interior  
 Bureau of Commercial Fisheries  
 Branch of Foreign Fisheries

Shortcomings in the Manufacture and Supply of Spare Parts for Agricultural Machines, 7 pp.  
 RUSSIAN, newspaper, Sel'skaya Zhizn, Moscow, 5 Jan 68, p. 1.  
 JPRS 44,545

Basic Trends and Organization of Work for Creating Automated Control Systems for Sewing Industry Enterprises, 6 pp, by N.A. Svetlova.  
 RUSSIAN, journal, Shveytnaya Promyshlennost', No. 6, Moscow, Nov-Dec 67, pp. 8-11.  
 JPRS 44,537

Theory of Complex Systems with a Hierarchical Control Structure, by A. I. Kukhtenko.  
 RUSSIAN, bk, Slozhnye Sistemy Upravleniya, 1966, pp 6-20.  
 NASA TT F-11,412

The "IKHUTANOR-66" Experiment, by Yu. M. Barats & Yu. Yu. Kachuro.  
 RUSSIAN, per, Sudestroyeniye, No 1, 1968, pp 26-28.  
 Dept of Navy NIC tr 2569

Flat-Die Press Forging, by I. Y. Tarnovskiy & V. N. Trubin.  
 RUSSIAN, per, Svobodnaya kovka na pressakh, Moscow, 1967, 327 pp.  
 \*FTD-HT-23-231-600

Investigation of Transient Characteristics of the Combustion Chamber of a Stationary Gas Turbine Installation, by I. T. Shvets, et al, 7 pp.  
 RUSSIAN, per, Teplofizika i Teploekhnika, 1964, pp 147-153.  
 ACSI J-2742  
 ID 2204026567

Equations of the Cyclically Symmetrical Heat-Stressed State of Shells of Revolution of Variable Thickness, by Ya. M. Grigorenko.  
 RUSSIAN, per, Teplovoe Napryazh. v Elementakh Konstruktsii, Kiev, Nauk. Dumka, Pt 5, 1965, RZM No 6 (1966), Rev. 6V 94, pp 146-156.  
 \*FTD-HT-23-263-68

The Use of a Color Screen for Quantitative Investigations of Schlieren by the Tepler Optical Method, by M. D. Apashev and V. D. Mikhaylenko, 9 pp.  
 RUSSIAN, per, Theory, Construction, Design and Testing of Internal Combustion Engines, Issue VI, Proceedings of the Engine Institute of the Academy of Sciences of the USSR, 1962.  
 P500024968  
 Dept of Navy NIC Tr 2514

Construction of Piers on the Coasts of the Far Eastern Basin, by D. S. Cherevach & A. A. Shmykov, 9 pp.  
 RUSSIAN, per, Transportnoye Stroitel'stvo, Vol 9, 1967, pp 22-24.  
 DIA LN 372-68

Concerning the Norm of the Filling In of Open Maritime Channels, by L. A. Logachev, 14 pp.  
 RUSSIAN, per, Trudiy, Vol 12, 1966, pp 59-65.  
 DIA LN 87-68

Reducing the Effectiveness of a Propulsion Unit by Connecting the Propeller Shroud to the Ship's Hull, by L. B. Sandler.  
 RUSSIAN, rpt, Tr. Novosib. in-ta inzh. vodn. transp. vvp., Vol 25, 1966, pp 19-23.  
 \*FTD-HT-23-282-68

Defense of Nuclear Submarines, by V. F. Droblenkov & V. N. Gerasimov.  
 RUSSIAN, per, Ugroza iz Glubini, Moskva, 1966, pp 170-177.  
 Dept of Navy NIC tr 2525 P500039568

On the Problem of Axisymmetric Vibration of a Shell of Revolution in the Case of a Double Turning Point, by P. Ye. Tovstik.  
RUSSIAN, per, Leningrad. Universitet. Vestnik. Matematika. Mekhanika. Astronomiya, No 1, 1967, pp 118-124.  
\*FTD-HT-23-217-68

On the Dynamics of High-Speed Drop Forging Process, by V. P. Chernichenko & L. G. Grishin.  
RUSSIAN, per, Vestnik Mashinostroyeniya, Issue 6, 1966, pp 58-61.  
P100043768-V  
FTD-MT-24-159-67

Equipment for Planishing Welded Joints, by S. A. Kurkin.  
RUSSIAN, rpt, Vyssheye Tekhnicheskoye Uchilishche. Prochnost' Svarnykh Konstruktsiy, Izd-vo Mashinostroyeniya, 1966, pp 72-84.  
\*FTD-MT-24-70-68

A Stereophotogrammetric Instrument, by G. V. Lazarev.  
RUSSIAN, Patent No 174378, Class 42.  
\*FTD-HT-23-202-68

Power Relations in a Contactless a-c Machine Operating at Variable Speed, by P. A. Kyalyan.  
UKRAINIAN, per, IVUZ. Energetika, No 11, 1965, pp 7-14.  
\*FTD-MT-24-72-68

Impingement of Annular Jets, by N. S. Iamkin.  
UKRAINIAN, per, IVUZ. Mashinostroyeniya, No 8, 1966, pp 43-49.  
\*FTD-HT-23-213-68

Supply-Carrying Vans and Trucks, 14 pp.  
ARABIC, per, al-Ta'bi'ah al-'Annah wa al-Ihsa'i, Cairo, Jan 68, pp. 49-66.  
JPRS 44,524

Uses of Ultrahigh Vacuum, by Chung-i Hua.  
CHINESE, per, K'uo hsueh hua pao, No 12, 1963, pp 445-448.  
\*FTD-MT-67-214

The X T 138 MT-CN22 Semi-Trailer.  
CZECH, per, Technicka Prace, No 10, 1967, 8 pp.  
\*ACSI-4593  
ID 2204012968

Problems With Refrigerator Cars.  
CZECH, per, Zeleznicar, Apr 1967, pp 1-4.  
DIA LN 275-68

On The Noise Problem in Railroad Operations.  
CZECH, per, Zeleznicni Doprava Atechnika, June 1967, pp 133-136.  
DIA LN 270-68

Locomotive Shops of the Czechoslovak Railroads.  
CZECH, per, Zeleznicni Doprava Atechnika, June 1967, pp 154-156.  
DIA LN 270-68

New Procedures in Tunnel Reconstruction, by G. Zelen, 35 pp.  
CZECH, per, Zeleznicni Doprava Atechnika, June 1967, pp 159-160.  
DIA LN 270-68

Damascus-Homs-Aleppo Electrical Network Goes Into Service, 6 pp.  
FRENCH, newspaper, Le Commerce du Levant, Beirut, 13 Jan 68, p. 4.  
JPRS 44,439

Data on Congo(Kinshasa) Inga Dam Project, 5 pp.  
FRENCH, newspaper, Le Courrier d'Afrique, Kinshasa, 10 Jan 68, pp. 1,3; 11 Jan 68, p. 1.  
JPRS 44,478

Use of Rigid Polyurethane Foams of High Density in Naval Construction, by A. Audouin & P. Le Griffon.  
FRENCH, per, La Revue Maritime, No 233, June 1966, pp 780-797.  
\*Dept of Navy NIC tr

Machine for Harvesting Potatoes and Other Tubers.  
FRENCH, Patent No. 1,056,648  
Dept of Comm  
Patent Office

Investigation of Power Plant Inlets, by  
W. Trommsdorff.  
GERMAN, rpt, Deutsche Versuchsanstalt für Luft-und  
Raumfahrt, Porz, W. Germany, Report DLR-FB-66-34,  
1966, 67 pp.  
NASA TT F-11,160

Lifting Gear and Conveyor Techniques in the USSR.  
GERMAN, per, Hebezeuge und Fördermittel, Dec 1967,  
pp 364-366.  
\*ACSI J-4508  
ID 2204010168

Lifting Gear and Conveyor Techniques in the  
USSR.  
GERMAN, per, Hebezeuge und Fördermittel, Dec  
1967, pp 364-366.  
\*ACSI J-4508  
ID 2204010168

Force Application on Vertical Vessels, by  
E. Kraegeloh, 28 pp.  
GERMAN, per, Mitt. Deut. Forsch. Blechverarbeit-  
ung und Oberflächenebehandlung e. V., No 24,  
1966, pp 357-370. P911039768  
AEC-ORNL-Tr-1725

The Bridges Related to the F169 Project Near  
Dobelin, 9 pp.  
GERMAN, per, Die Strasse, No 9, Sept 1967,  
pp 417-421.  
DIA LN 326-67

Electrohydraulic Row Plant Thinner, by  
Hans Kastner & Christoph Heinrich.  
GERMAN, Patent No. 53,434  
Dept of Comm  
Patent Office

Correlation Between the Running Speed of Trains  
and the Capacity of Railroad Installations, by  
Paul Meszaros, 19 pp.  
HUNGARIAN, per, Kozlekedes Tudomanyi Szemle,  
Vol XVII, No 5, May 1967, pp 189-196.  
DIA LN 99-68

Characteristics of Ferrite Components and Methods  
of Approximate Calculation for Design, by  
Yoshihiro Konishi.  
JAPANESE, per, The Technical Journal of Japan  
Broadcasting Corporation, Vol 19, No 4, 1967,  
pp 46-62.  
ACSI J-4124  
ID 2204000468

CEMA Research Institute Cooperation in Con-  
struction, by Aleksander Wolski, 11 pp.  
POLISH, per, Inzyniera i Budownictwo,  
Vol 23(28), No. 11/12, Warsaw, Nov/Dec 67,  
pp. 433-438.  
JPRS 44,485

USSR-Polish Cooperation in Construction,  
by Hanna Drozdowska, 22 pp.  
POLISH, per, Przeglad Budowlany,  
Warsaw, No. 11, Nov 67, pp. 596-  
608.  
JPRS 44,604

Tire Factory Numbering System Outlined, by  
Stanislaw Kopeczek, 5 pp.  
POLISH, monthly, Technika Motoryzacyjna,  
No. 12, (187), Warsaw, Dec 67, pp. 361-  
362.  
JPRS 44,493

Brazil to Improve Navigability of Its River,  
by Paulo Rehder, 9 pp.  
PORTUGUESE, per, Jornal do Brasil, Rio de  
Janeiro, 17 Dec 67, p. 40.  
JPRS 44,429

Development Program for Navigable  
River Network, by Afonso Henrique  
Furtado Portugal, 14 pp.  
PORTUGUESE, lecture, Navegabilidade  
dos Rios, Seminary on Hydraulic  
Resources, Pontifical University of  
Rio de Janeiro, pp. 10-16.  
JPRS 44,559

Measures for Combating Noise in Roumanian River  
Ships, by A. Stan, M. Grumazescu, 10 pp.  
RUMANIAN, per, Constructia de Masini, Vol 16, No  
8, 1964, pp 420-423. P100046968-V  
FTD-HT-67-124

New Railroad Lines, by Dr. Petar Potic,  
and A. Kecic, 11 pp.  
SERBO-CROATIAN, per, Jugoslovenski Pregled,  
No. 10, Belgrade, Oct 67, pp. 419-422.  
JPRS 44,493

The Yugoslav Ship Registry, by A. Botric  
7 pp.  
SERBO-CROATIAN, journal, Pomorstvo,  
No. 11-12, Rijeka, Nov-Dec 67,  
pp. 370-371.  
JPRS 44,572

Shipbuilding in Yugoslav Shipyards,  
5 pp.  
SERBO-CROATIAN, journal, Pomorstvo,  
No. 11-12, Rijeka, Nov-Dec 67, pp. 372  
375.  
JPRS 44,624

**Exhibit of Magnetic Defectoscopes.**  
SERBO-CROATIAN, per, Strojarska Vyroba, Vol 15, No 10, 1967, pp 750-752.  
\*ACSI J-4247  
ID 2204002768

Methods & Equipment

**High-Speed Flash Photography at 40,000 Frames per Second**, by A.N. Berezkin and M.K. Berezkina, 7 pp.  
RUSSIAN, book, Aerofizicheskiye Issledovaniya Sverkhzvukovykh Teleniy, Moscow-Leningrad, Nauka Publishing House, 1967, pp. 227-233.  
JPRS 44,615

**Distortion of Features Copied through Transparent Overlays**, by N. V. Smozhenkov.  
RUSSIAN, per, Geodeziya i Kartografiya, No 6, 1967, pp 62-68.  
ACSI J-3556  
ID 2204049967

**Contribution to the Question of the Collapse Pressure for Casing of Oil and Gas Wells**, by O. A. Lebedev, 15 pp.  
RUSSIAN, per, Neftyanoye Khozyaystvo, No 11, Nov 1963, pp 18-23.  
P911046468  
AEC UCRL-TRANS-10195

**Apparatus for Investigating the Hardness of Metals and Alloys over a Wide Range of Temperatures**, by V. A. Borisenko and G. S. Pisarenko, 13 pp.  
RUSSIAN, per, Porosh Met, Akad Nauk UK SSR, Vol 1, No 5, 1961, pp 95-101.  
P911017968  
AEC-IA-Tr-67-94.

**New Apparatus for Irradiated Liquids and Gases with Accelerated Electrons**, by P. Huyskens, 23 pp.  
BELGIAN, per, Ind. Chim. Belge, Vol 30, 1965, pp 693-700.  
P911018368  
AEC UCRL-TRANS-10148

**Automatic Stereo-Camera Produced in Shanghai.**  
CHINESE, per, Ching Chi Tao Pao, No 1041, 16 Oct 1967, p 16.  
\*FTD-HT-23-183-68C

**A Resonance-Type Ultrasonic Thickness Gage for Measuring the Wall Thickness and Corrosion of Chemical Plant Equipment**, by M. C. Tang, 12 pp.  
CHINESE, per, Hua Hsueh Shih Chieh, Vol 18, No 8, 1964, pp 377-379.  
P100047968-V  
FTD-HT-67-163

**The Compacting of Powders**, by P. Vergnon, 34 pp.  
FRENCH, rpt, Commissariat a l'Energie Atomique, Saclay (France) CEA No 70, May 1966.  
P911047668  
AEC UCRL-Trans-10186

**A New Method for the Measurement of Very Low Vapor Pressures. The Vapor Pressures of Mercury and of Potassium, Part III**, by H. Mayer, 39 pp.  
GERMAN, per, Zeitschrift fur Physik, No 67, 1931, pp 240-263.  
P911064968-V  
AEC-UCRL-Tr-10198

**Method of Measuring Sound Carrier Speeds**, by Franz-Christian Jarczyk & Fritz Hammon.  
GERMAN, Patent No. 1,009,831  
Dept of Comm  
Patent Office

**Material Testing Procedure**, by J. Kaiser, 15 pp.  
GERMAN, Patent No 852771, Feb 15, 1950.  
P911049268  
AEC UCRL-Trans-10185

**Applications of the Stereotope in the Interpretation of Aerial Photographs**, by M. Zsussa.  
HUNGARIAN, per, Geodesia es Kartografia, Vol 17, No 2, 1965, pp 116-122.  
\*FTD-HT-23-170-68

**Research on the Design of Explosion Proof Containment Structures.**  
JAPANESE, rpt, Japanese Atomic Energy Research Institute, JAERI Memo No. 1896, 1 Dec 1964.  
P911084668-V  
AEC-ANL-Tr-555

**Development of an In-Core Void-Meter**, by Masahiro Satomi & Hideo Yusa.  
JAPANESE, per, Keisoku To Seigyo, Vol 3, No 3, Sept 1967, pp 69-75.  
P911083168-V  
AEC-Tr-6929

**Electrolytic Fabrication of Very Fine Holes**, by Ro Nannichi.  
JAPANESE, per, Nippon Kinzaku Gakkaishi, Vol 64, No 511, Aug 1961, pp 1149-1157.  
P911063868-V  
AEC ORNL-Tr-1827

**Measuring Amplifier for Measuring Electric Charges.**  
SWISS, Patent No. 267,431  
Dept of Comm  
Patent Office



Missile Technology

The Meaning of the Solid-Fuel Rocket (Missile) for the Field Artillery, Antitank Defense, and Air Defense.  
GERMAN, per, Allgemeine Schweizerische Militärzeitschrift, No 1, 1968, pp 20-28.  
\*ACSI J-4525  
ID 2204010668

The Way I See Missiles, by C. Drosynakis.  
GREEK, bk, The Way I See Missiles, 1967.  
ACSI J-4362  
ID Incl to I 837008867

Possibility of Building Rocket Missiles in Peru, by Jose Castro Mendivil, 7 pp.  
SPANISH, per, Revista Militar del Peru, Lima, Nov/Dec 67, pp. 51-56.  
JPRS 44,509

Navigation, Communications, Detection & Countermeasures

Investigation of the Instrumental Errors of the RDG Radio Rangefinder, by V. V. Zlotin and A. A. Genike,  
RUSSIAN, per, Geodeziya i Kartografiya, No 6, 1967, pp 8-15.  
ACSI J-3556  
ID 2204049967

New Circuits for Frequency Dividers with Variable Coefficients, by A. P. Zaytsev and A. I. Zaytsev, 7 pp.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy. Elektromekhanika, No 2, 1964, pp 239-242.  
P1000465668-V  
FTD-HT-67-203

Point Diodes from Gallium Arsenide, by A. P. Vyatkin & A. A. Vilisov.  
RUSSIAN, per, Ministerstvo Vysshego i Srednego Spetsial'nogo Obrazovaniya Rssr, Poverkhnostnyye i Kontaktnyye Yavleniya V Poluprovodnikakh, 1964, pp 238-253.  
P100044768-V  
FTD-MT-66-90

Determination of a Ship's Location at Sea (Ocean) Using the Method of Corresponding Time Angles of Celestial Bodies, by N. F. Slin'ko.  
RUSSIAN, per, Problemy Arktiki i Antarktika, No 26, 1967, pp 85-94.  
\*FTD-HT-23-207-68

Scientific Navigation, Communications, Detection & Countermeasures (Contd)

Problem of Forming in a Man-Operator a Habit of Tracking Moving Target, by G. V. Sukhokol'skiy, 10 pp.  
RUSSIAN, per, Problemy Obsheho i Inzhenernoy Psikhologii, 1964, pp 80-89. P100046868-V  
FTD-HT-66-543

Optimal Radio Reception of AM Under Conditions of Interference by Another AM Signal and Fluctuational Noise, by Yu. N. Babanov.  
RUSSIAN, per, Radiotekhnika, Vol 21, No 11, 1966, pp 29-40.  
ACSI J-3717  
ID 2204052767

Development of Underwater Research, by A. N. Dmitriyev, 15 pp.  
RUSSIAN, bk, Razvitiye Morskikh Podvondn'Kh Issledovaniy, P500378267  
Dept of Navy/NIC Trans No 2495

Man as a Dynamic Link in Naval Control Systems, by S. S. Drozdov.  
RUSSIAN, per, Sudostroeniya, No 7, 1967, pp 35-37.  
Dept of Navy/APL/JHU T-2119

Marine Transport of the Land of the Soviets, 12 pp.  
RUSSIAN, per, Vodnyy Transport, 21 Sept 1967, p 1.  
DIA LN 287-68

Integrators of Electrohydrodynamic Analogies of Industrial Production, by P. F. Fil'chakov and V. I. Panchishin, 6 pp.  
RUSSIAN, bk, Voprosy Teorii i Primeneniya Matematicheskogo Modelirovaniya, 1965, pp 268-272.  
P100051568-V  
FTD-MT-66-137

Range Finding Device, 3 pp.  
BULGARIAN, per, Armeyski Pregled, No 10, 1967, pp 90-91.  
ACSI J-4040  
ID 2204065367

Communications, 14 pp.  
CZECH, per, Cisla Pro Kasdeho, 1964, pp 97-106.  
DIA LN 411-68

Telegraphs, 16 pp.  
DUTCH, per, PTT Bedrijfsbaden, Oct 6, 1966, pp 6, 7, 9-15, 18-19.  
DIA LN 259-68

Scientific  
Navigation, Communications, Detection &  
Countermeasures (Contd)

Research in the Field of Telecommunications, by  
R. Sueur, 20 pp.  
FRENCH, per, L'Onde Electrique, June 1966,  
pp 676-684.  
DIA LN 155-68

French Ministry of Post and Telecommunications,  
82 pp.  
FRENCH, per, Postes Et Telecommunications, 1967,  
pp 2-23.  
DIA LN 156-68

Measures Taken to Improve Telephone Conditions,  
12 pp.  
FRENCH, per, Postes Et Telecommunications, No 143,  
Nov 1967, pp 8-10.  
DIA LN 501-68

Data Transmission and the Telex Network, by  
Daniel Faugeras, 24 pp.  
FRENCH, per, Revue des PTT de France, Jul-Aug 1967,  
pp 5-19.  
DIA LN 440-68

The Track Plans Signal Control Power W1 at the  
Dresden-Friedrichstadt Train Station.  
GERMAN, per, Veg Verlag Technik, Jul 1967,  
pp 330-332; 352.  
DIA LN 109-68

Radar Devices in River Navigation of the World,  
by George Angeli, 26 pp.  
HUNGARIAN, per, Kozlekedes Tudomanyi Szemle,  
Vol XV, No 12, Dec 1965, pp 539-546.  
DIA LN 414-68

Function of Innovations and Inventions Within  
the Technical Development of Communications,  
by Martin Kiss, 22 pp.  
HUNGARIAN, per, Kozlekedes Tudomanyi Szemle,  
Vol XVII, No 8, Aug 1967, pp 341-349.  
DIA LN 413-68

Comments of the Advisability of Plotting Constant-  
Slope Fields or Nautical Charts for Facilitating  
the Interpretation of Radar Pictures, by S.  
Przewlocki.  
POLISH, per, Lodz Politechnika, Zeszyty Naukowe,  
No 56, 1964. Zeszyt Specjalny, No 2, pp 51-55.  
\*FTD-HT-23-188-68C

Time Scales for Radio Time Signals, by I.  
Gajerowicz.  
POLISH, per, Postepy Astronomii, Vol 15, No 4,  
Oct-Dec 1967, pp 285-293.  
\*ACIC TC-1402

Scientific  
Navigation, Communications, Detection &  
Countermeasures (Contd)

River Navigability, by Alfonso Henrique, 37 pp.  
PORTUGUESE, per, Departamento Nacional De Portos  
E Vias Navegaveis, pp 11-19; 39-40.  
DIA LN 39-68

New Regulation Concerning Amateur Radio  
Operators, by Victor Nicolescu,  
7 pp.  
RUMANIAN, per, Sport si Technica,  
Vol. 14, No. 1, Bucharest 1968,  
p. 21.  
JPRS 44,536

Features of the MIP-12-24 Transistorized Tele-  
phone System with Time Division, by L. Pana,  
22 pp.  
RUMANIAN, per, Telecommunicatii, No 9, 1965,  
pp 212-219. FI00047768-V  
FTD-HT-67-253

The "Crossbar-Pentaconta 1000" Automatic Tele-  
phone Switching System, by P. Paboc, 18 pp.  
RUMANIAN, per, Telecommunicatii, Vol 9, No 8,  
1965, pp 293-300. FI00047168-V  
FTD-HT-67-248

Nuclear Sciences & Technology

Phase Transitions in Ferroelectrics, By V. G. Vaks.  
RUSSIAN, rpt, Institute of Atomic Energy im I. V.  
Kurchatova, Moscow, 1967, 47 pp.  
\*NASA TT F-11,468

Quantum Theory of Scalar Field with Nonstatic  
Source, by M. I. Shirokov.  
RUSSIAN, rpt, Joint Institute for Nuclear Research,  
JINR Report P2-3040, Dubna, USSR, 1966, 18 pp.  
NASA TT F-11,243

Cross Sections and Resonance Capture and Fission  
Integrals of Long-Lived Americium Isotopes, by  
M. A. Bak & A. S. Krivokhatskii.  
RUSSIAN, per, At. Energi., Vol 23, 1967, pp 316-319.  
P911081468-V  
AEC-BNL-Tr-175

On Neutron Capture in Heavy Uranium and Neptunium  
Isotopes Under Thermonuclear Explosion Conditions,  
by V. G. Zagrafov & V. P. Zommer.  
RUSSIAN, per, At. Energi., Vol 23, 1967, pp 319-326.  
P911084468-V  
AEC-BNL-Tr-174

Scientific  
Nuclear Sciences & Technology (Contd)

Use of Underground Nuclear Explosions in Oil-Gas Mining, by O.L. Kedrovskiy and K.I. Mangushev, 10 pp.  
RUSSIAN, per, Geologiya Nefti i Gaza, No. 12, Moscow, Dec 67, pp. 12-16.  
JPRS 44,486

Optimum Systems for Dissipating Heat by Radiation, by G. L. Grodzovskiy & Yu. G. Zhulev.  
RUSSIAN, rpt, Paper Presented at the Eighteenth Congress of the International Astronautical Federation, Belgrade, 25-30 Sept 1967, 12 pp.  
NASA TT F-11,433

Changes in Indices of External Respiration, Gas Exchange and Energy Expenditures in Weightlessness, by I. I. Kas'yan.  
RUSSIAN, rpt, Paper Presented at the Eighteenth Congress of the International Astronautical Federation, Belgrade, 25-30 Sept 1967, 12 pp.  
NASA TT F-11,406

Further Investigations of the Complex Effect of Ionized Radiation and Accelerations on the Organism as Related to Space Flights, by V. V. Antipov.  
RUSSIAN, rpt, Report Presented at the Eighteenth Congress of the International Astronautical Federation, Belgrade, 25-30 Sept 1967, 19 pp.  
NASA TT F-11,397

Infrared Radiation Detector, by M. Mach.  
CZECH, Patent No. 5701-63, Class 42, 119096, 18 Oct 1963.  
\*FTD-HT-23-201-68B

A Balanced Infrared Radiation Detector, by M. Mach.  
CZECH, patent No PV 1078-64, 119829, 26 Feb 1964.  
\*FTD-HT-23-201-68A

Reprocessing of Irradiated Fuels.  
FRENCH, rpt, Centre d'Etude de l'Energie Nucleaire, Mol (Belgium), Quarterly Rpt No 29, 1 Apr-30 June 1967.  
AEC-EURAE-1934 P911066568-V

Use of Plutonium as Fuel in Nuclear Reactors.  
FRENCH, rpt, C.E.N. - Belgo Nucleaire, Belgium, Quarterly Rpt No 14, Jul 1967.  
AEC-EURAE-1929 P911066268-V

Scientific  
Nuclear Sciences & Technology (Contd)

Electrostatic Analyzer for the Detection of Fast Neutral Particles, by F. P. Valckx.  
FRENCH, rpt, Commissariat a l'Energie Atomique, Fontenay-aux-Roses, Seine, France, Report EUR-CEA-FC-255, June 1964, 15 pp.  
\*NASA TT F-11,458

The Thermonuclear "Bulldozer" Will Soon Be in Use, by Jean-Rene Roy, 23 pp.  
FRENCH, per, Le Jeune Scientifique, Nov 1966, pp 36-41. P911049168  
AEC UCRL-Trans-10152

Direct Interaction Deuterons, Tritons and Helium Ions Ejected by 156 MeV Protons from Medium and Heavy Nuclei, by H. Dubosi, B. Gatty, 25 pp.  
FRENCH, per, J. Phys, Vol 28, 1967, pp 257-270.  
P911043568  
AEC ORNL-TR-1831

A Study of Heat Release Distribution in Fast Reactors with Absorber Rods, by V. V. Boudarenko, A. I. Voropaev, 13 pp.  
GERMAN, rpt, Symposium on the Physics and Safety Problems of Fast Reactors, 1967, 8 pp.  
P911065068-V  
AEC ANL-Tr-542

Atomic Energy Committee Chief Discusses Plans, 8 pp.  
GREEK, newspaper, Elevtheros Kosmos, Athens, 26 Jan 68, p. 6.  
JPRS 44,524

Various Problems Concerning Communist China's Third Nuclear Test; CC Constructing New Atomic Base in Tsinghai; CC Civil Aviation Adm Signs Technical Labor Agreement with France.  
JAPANESE, per, Koko Joho Shiryo, No 103, 1966, pp 36-39.  
ACSI J-4289  
ID 2204003768

Behavior of Radioactive Iodine, by Sadao Hattori.  
JAPANESE, per, Nippon Genishiryoku Gakkaiishi, Vol 8, 1966, pp 656-659. P911085268-V  
AEC-WAPD-Trans-84

Scientific  
Nuclear Sciences & Technology (Contd)

Production of Shaped Articles from Sintered High-Purity Calcium Fluoride of Natural and Synthetic Origin, by R. Wlodarski, 7 pp.

POLISH, per, Nukleonika, Vol 9, 1964, pp 493-496.

P911047268

AEC UCRL-Trans-10193

Characteristics of a Nuclear Airburst Over the Sea.

POLISH, per, Przeglad Morski, Vol 20, No 11, 1966, pp 3-9.

\*FTD-HT-23-191-68C

Determining the Factors in Attenuation of the Intensity of Radioactive Radiation with the DRT-M2 Detector, by Bozidar Medved.

SERBO CROATIAN, per, Vojnotehnicki Glasnik, No 9, 1967, pp 738-740.

ACSI J-4473

ID 2204009568

Physics

Scattering of Light in a Turbid Medium, by K. S. Shifrin.

RUSSIAN, bk, Gosudarstvennoye Press, Moscow, 1951, 288 pp.

NASA TT F-477

Use of Gamma-Ray Spectrometry in Analyzing Radioactivity in Marine Hydrobiological Samples, by Z. A. Arzhanova & A. F. Fedorov.

RUSSIAN, per.

Dept of Navy NIC tr 2564

Flow Formation Near the Model in a Shock Tube, by M. P. Syshchikova.

RUSSIAN, bk, Aerofizicheskiye Issledovaniya Sverkhzvukovykh Tehenii, 1967, pp 7-13.

NASA TT F-11,431

Measuring the Gas Density Behind a Shock Wave by the Electron Beam Method, by B.P. Busygin and G.K. Tomakayev, 11 pp.

RUSSIAN, book, Aerofizicheskiye Issledovaniya Sverkhzvukovykh Tehenii, Moscow-Leningrad, Nauka Publishing House, 1967, pp. 66-73.

JPRS 44,615

Scientific  
Physics (Contd)

A Method for Measuring the Emittance and Absorptivity of a Gas Behind a Shock Wave Front, by B.M. Bobrynin and D.A. Shingarkina, 11 pp.

RUSSIAN, book, Aerofizicheskiye Issledovaniya Sverkhzvukovykh Tehenii, Moscow-Leningrad, Nauka Publishing House, 1967, pp. 105-113.

JPRS 44,615

Manifestation of the Effects of Variable Heat Capacity of a Gas in Supersonic Flow Around Blunt Bodies, by Yu.P. Lun'kin and T. Ya. Timofeyeva, 19 pp.

RUSSIAN, book, Aerofizicheskiye Issledovaniya Sverkhzvukovykh Tehenii, Moscow-Leningrad, Nauka Publishing House, 1967, pp. 128-142.

JPRS 44,615

The Effect of Simultaneous Occurrence of Oscillatory and Dissociative Relaxation on Supersonic Flow Around Blunt Bodies, by S.B. Koleshko, et al, 28 pp.

RUSSIAN, book, Aerofizicheskiye Issledovaniya Sverkhzvukovykh Tehenii, Moscow-Leningrad, Nauka Publishing House, 1967, pp. 142-163.

JPRS 44,615

A Pressurized Ballistic Unit, by G.I. Mishin and N.P. Mende, 7 pp.

RUSSIAN, book, Aerofizicheskiye Issledovaniya Sverkhzvukovykh Tehenii, Moscow-Leningrad, Nauka Publishing House, 1967, pp. 163-168.

JPRS 44,615

A Firing Range for Aerodynamic Research, by I.V. Basargin, et al, 13 pp.

RUSSIAN, book, Aerofizicheskiye Issledovaniya Sverkhzvukovykh Tehenii, Moscow-Leningrad, Nauka Publishing House, 1967, pp. 168-178.

JPRS 44,615

Principles of Construction of Ballistic Telemetry Systems, by B.F. Nadtochiy and N.M. Lobasheva, 16 pp.

RUSSIAN, book, Aerofizicheskiye Issledovaniya Sverkhzvukovykh Tehenii, Moscow-Leningrad, Nauka Publishing House, 1967, pp. 198-209.

JPRS 44,615

Design Calculations for a Lightweight Gas Gun With a Lightweight Piston, by S.N. Palkin, and B.I. Reznikov, 13 pp.

RUSSIAN, book, Aerofizicheskiye Issledovaniya Sverkhzvukovykh Teleniy, Moscow-Leningrad, Nauka Publishing House, 1967, pp. 210-218.  
JPRS 44,615

The Shape of a Trailing Shock Wave Formed During Supersonic Motion of A Hemisphere and a Cylindrical Plate in Various Gases, by V.S. Maslennikov, 11 pp.

RUSSIAN, book, Aerofizicheskiye Issledovaniya Sverkhzvukovykh Teleniy, Moscow-Leningrad, Nauka Publishing House, 1967, pp. 256-264.  
JPRS 44,615

Investigation of Supersonic Nonstationary Flow Around a Model Occurring at the Interface of Gases With Different Density, by A.N. Berezhkin and S.I. Rozov, 6 pp.

RUSSIAN, book, Aerofizicheskiye Issledovaniya Sverkhzvukovykh Teleniy, Moscow-Leningrad, Nauka Publishing House, 1967, pp. 270-274.  
JPRS 44,615

Investigation of the Loss of Mass of Low-Melting Models in a Ballistic Unit, by S.N. Palkin, 13 pp.

RUSSIAN, book, Aerofizicheskiye Issledovaniya Sverkhzvukovykh Teleniy, Moscow-Leningrad, Nauka Publishing House, 1967, pp. 274-283.  
JPRS 44,615

The Anomalous Absorption of Electro-Magnetic Energy in Plasma, by G. I. Suramlishvili and Yu. B. Ponomarenko, 7 pp.

RUSSIAN, per, AN SSSR, Sobremennaya Fizika, Vol 40, No 1, 1965, pp 47-53. P100045068-V  
FTD-MT-24-150-67

Stream Emission of Metallic Plasma in a Vacuum, by E. K. Chekalin & V. S. Shumanov.

RUSSIAN, per, AN SSSR, Energeticheskiy Institut, Issledovaniya Po Fizicheskoy Gasodinamike, Izd-vo Nauka, Moskva, 1966, pp 101-108.  
P100045068-V  
FTD-MT-24-153-67

Critical Electron-Beam Currents in Plasma, by M. D. Rayzer & A. A. Rukhadze.

RUSSIAN, rpt, AN SSSR, Fizicheskiy Institut Imeni P. N. Lebedeva, Laboratoriya Uskoriteley, Moscow, No 98, 1967.  
AEC UCRL-Tr-10147 P911016968

Experimental Investigation of the Motion of Single Charged Particles in a Trap with Magnetic Mirrors, by V. G. Ponomarenko & L. Ya. Trainin.  
RUSSIAN, rpt, Akademiya Nauk SSSR, Novosibirsk, Institut Yadernoi Fiziki, 1967.  
P911014368  
AEC UCRL-Tr-1358

Certain Theoretical Problems of Wideband Oscillators, by F. A. Vodop'yanov.

RUSSIAN, bk, Akademiya Nauk SSSR, Radiotekhnicheskiy Institut, Moscow, 1964, 150 pp.  
\*NASA TT F-11,437

Shift of Liquid Inclusion in a Crystal in the Direction of Heat Source, by G. G. Lemlein.  
RUSSIAN, per, Dokl Akad Nauk SSSR, Vol 85, No 2, 1952, pp 325-328.  
AEC-WAPD-Trans-78 P911016868

Fundamental Boundary Value Problems in Potential Theory for a Space with an Elliptic Slot. The Pressure Due to an Elliptic Die on an Elastic Half-Space, by M. D. Martynenko.  
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 176, No 1, Sep 1967, pp 53-55.  
Am Inst Phys  
Vol 12, No 9, Mar 1968

Flow of a Viscous Gas Near a Wall with a Corner, by I. Yu. Brailovskaya.  
RUSSIAN, per, Dok Ak Nauk SSSR, Vol 176, No 3, Sep 1967, pp 549-552.  
Am Inst Phys  
Vol 12, No 9, Mar 1968

Theoretical and Experimental Investigation of Absolute Intensities, by V. S. Makina.  
RUSSIAN, rpt, AN SSSR, Otdeleniye Fiziko-Matematicheskikh Nauk, Optika i Spektroskopiya, t. 3: Molekularnaya Spektroskopiya, Izd-vo Nauka, Vol 3, 1967, pp 296-301.  
\*FTD-MT-23-210-68

New Data on the Deposition of Crystalline Substance on the Walls of a Liquid Inclusion, by G. G. Lemlein & M. O. Kliya.  
RUSSIAN, per, Dok. Akad Nauk SSSR, No 82, 1952, pp 763-768.  
AEC-WAPD-Trans-80 P911043268

Scientific  
Physics (Contd)

Thermal Shock Along the Outer Contour of a Ring with Consideration of Viscous Elastic Damping of Oscillations in the Material, by Yu. S. Rudnyts'kyy, 7 pp.  
RUSSIAN, per, AN UkrSSR, Dopovidy, No 11, 1964, pp 1455-1460. P100046768-V  
FTD-HT-66-547

Drifting Instability of Plasma of Discharge with Oscillatory Electrons, by L. A. Dushin, Yu. K. Kuznetsov, 9 pp.  
RUSSIAN, per, AN UkrSSR, Fiziko-Tekhnicheskii Institut, Doklady, No 197, 1966, pp 3-11.  
P100049168-V  
FTD-MT-24-152-67

Energy Spectra of Slow Ions Emitted by a Metal Surface as a Result of Ion Bombardment, by U. A. Arifov and D. D. Grulich, 6 pp.  
RUSSIAN, per, AN UZSSR, Doklady, No 5, 1965, pp 20-23. P100051368-V  
FTD-HT-23-799-67

Initiation of Detonations of Compacted Explosives by Radiation of an Optical Quantum Generator, by A. A. Brish, I. A. Galeev, 5 pp.  
RUSSIAN, per, Fiz. Goreniya Vzryva, No 3, 1965, pp 132-133. P911045668  
AEC UCRL-TRANS-10164

Effect of an Increase in External Pressure on the Detonation Capacity of Certain Explosives, by A. F. Belyayev & M. K. Sukoyan.  
RUSSIAN, per, Fiz. Goreniya i Vzryva, Vol 3, No 1, 1967, pp 19-22.  
\*Dept of Navy/APL/JHU J-1149

Strength of Nickel and Iron Films Obtained by Vacuum Condensation, by L. S. Palatnik.  
RUSSIAN, per, Fizika Metallov i Metallovedeniye, Vol 19, No 2, 1965, pp 310-311.  
\*NASA TT F-11,447

Theory of Absorption of Ultrasound by Free Electrons in Metals in a Quantized Magnetic Field. Part II. Propagation of Sound Along the Magnetic Field, by B. N. Filippov & P. Zyryanov.  
RUSSIAN, per, Fizika Metallov i Metallovedeniye, Vol 24, No 1, 1967, pp 18-26.  
\*NASA TT F-11,455

Scientific  
Physics (Contd)

Theory of the Thermal Conductivity of Metals with Crystal Structure Defects, by A. M. Yermolayev.  
RUSSIAN, per, Fizika Metallov i Metallovedeniye, Vol 23, No 5, 1967, pp 813-818.  
NASA TT F-11,418

Theory of the Energy Spectrum and Properties of Metals with Impurities, by O. B. Solokov & V. Ye. Naysh.  
RUSSIAN, per, Fizika Metallov i Metallovedeniye, Vol 23, No 5, 1967, pp 819-830.  
NASA TT F-11,419

Indirect Quadrupole-Quadrupole Interactions of Nuclei in Metals, by A. R. Kessel.  
RUSSIAN, per, Fizika Metallov i Metallovedeniye, Vol 23, No 5, 1967, pp 837-844.  
NASA TT F-11,420

Certain Non-Linear Effects in a Collisionless Plasma and Possible Perspectives of Their Application, by I. S. Danilkin & L. M. Kovrizhnykh.  
RUSSIAN, per, Fizika Plazmy, Trudy AN SSSR, Fizicheskii Institut, Vol 32, 1966, pp 112-129.  
\*FTD-MT-24-77-68

On the Theory of Kinetic Oscillations in Semiconductors, by P. M. Karageorgji-Alkalaev & A. Yu. Leiderman.  
RUSSIAN, per, Fiz. Tverdogo Tela, Vol 9, No 8, 1967, pp 2151-2156.  
Dept of Navy/APL/JHU T-2117

Gas Analyzers, by V. A. Pavlenko.  
RUSSIAN, bk, Gazoanalizatory, 1965.  
P100044168-V  
FTD-MT-66-12

Tables of Photoionization Cross-Sections of the Hydrogen Atom, by B. I. Volkov and D. P. Grechukhin, 252 pp.  
RUSSIAN, rpt, IAE-873, 1965. P911005768-V  
AEC UCRL-TRANS-10134

Ion-Cyclotron Instability of a Plasma in an Adiabatic Trap with "Minimum-B", by U. T. Saiborodov & M. S. Ioffe.  
RUSSIAN, rpt, Culham Laboratory, IAE-1331, Moscow, 1967, pp 1-28. P911083968-V  
AEC NP-TR-1604

Oscillations of a Homogeneous Anisotropic Low-Pressure Plasma, by A. V. Timofeyev & V. I. Pistunovich.  
RUSSIAN, rpt, Institute of Atomic Energy Kurchatov USSR, No IAE-1079, 1966.  
AEC UCRL-Tr-10202 P911064368-V

Scientific  
Physics (Contd)

Work on High-Power High-Frequency Generator into Plasma Load, by N. A. Borzunov, S. M. Osovets, 11 pp.  
RUSSIAN, rpt, Institut Atomnoy Energii im I. V. Kurchatova, 1966, pp 1-11. P100048868-V  
FTD-MT-24-89-67

Magnetic Channel, by A. L. Rezbachenko & E. I. Sadoyskiy.  
RUSSIAN, per, Institut Atomnoy Energii Im. I. V. Kurchatova, Moskva, SSSR (IAE-1099), 1966, pp 1-15.  
P100044268-V  
FTD-MT-24-91-67

High-Speed Electrodynmic Ribbon Valve for Peripheral Admission of Gas, by N. V. Filippov & L. G. Golubchikov.  
RUSSIAN, per, Institut Atomnoy Energii Im. I. V. Kurchatova, Moskva SSSR, 1966, pp 1-15.  
P100044568-V  
FTD-MT-24-87-67

Powerful Sources of High-Voltage Feed of Injectors and Questions of Voltage Stabilization, by R. P. Vasil'yev, O. N. Kachalov, 24 pp.  
RUSSIAN, rpt, Institut Atomnoy Energii im I. V. Kurchatova, 1966, pp 1-24. P100048768-V  
FTD-MT-24-90-67

A Method for Complex Simulation of Nonstationary Mass and Heat Transfer Processes, by N. A. Fridlander, 10 pp.  
RUSSIAN, per, Inzhenerno-Fizicheskiy Zhurnal, Vol 9, No 5, 1965, pp 577-580. P100047868-V  
FTD-MT-67-164

Steady Movement of Cracks at Straight-Line Joint Between Two Elastic Materials, by R. V. Gol'dahteyn, 19 pp.  
RUSSIAN, per, Inzhenernyy Zhurnal, Mekhanika Tverdogo Tela, No 5, 1966, pp 93-102. P100047068-V  
FTD-MT-23-596-67

Hydrodynamics of Laminar Flow of a Thin Liquid Film Over an Inclined Cylinder, by M. I. Braynin & V. N. Linetskiy.  
RUSSIAN, per, Izvestiya An SSSR, Energetika i transport, No 3, 1967, pp 115-120.  
\*FTD-MT-23-221-68C

Scientific  
Physics (Contd)

Numerical Solution of Some Specific Problems in Radiant Heat Exchange by a New Method for Calculating Localized Radiation Characteristics, by Yu. A. Surinov & O. P. Luk'yanenko.  
RUSSIAN, per, Izvestiya, AN SSSR, Energetika i transport, No 3, 1967, pp 121-136.  
\*FTD-MT-23-221-68C

Increase in Thrust by Flow Rotation, by I. N. Naumova & Yu. D. Shmygilevskiy.  
RUSSIAN, per, Izvestiya AN SSSR, Mekhanika zhidkosti i gaza, No 1, 1967, pp 34-37.  
\*FTD-MT-23-225-68

Flow of Radiating Hydrogen in Axially Symmetrical Nozzles, by V. V. Aleksandrov.  
RUSSIAN, per, Izv. Akad. Nauk SSSR, Zhid. Gaza, No 4, 1967, pp 19-28. P911083368-V  
AEC-ANL-Tr-557

On the Problem of Radiation-Generated Destruction of Crystals, by S. V. Starodubtsev.  
RUSSIAN, per, AN UzSSR, Izvestiya, Seriya Fiziko-Matem. Nauk, No 2, 1963, pp 41-43.  
\*FTD-MT-23-193-68

Some Models of Radiation Damage in Non-Conducting Crystals, by A. Ye. Kiv & S. V. Starodubtsev.  
RUSSIAN, per, Izvestiya AN UZSSR. Seriya Fiziko-Matematicheskikh Nauk, No 3, 1963, pp 41-43.  
\*FTD-MT-23-222-68

Experimental Study of the Effect of the Thermodynamic Properties of a Fluid on Cavitation Phenomena, by N. S. Yershov.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy, Aviatsionnaya Tekhnika, Vol 9, No 2, 1966, pp 130-136.  
NASA TT F-10,913

Compact Machine for Producing Thin-Film Elements, by M. V. Belous.  
RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika, No 3, 1966, pp 169-173.  
\*FTD-MT-23-177-68

Flow-Rate and Pressure Coefficients on the Surface of a Conical Flow at Hypersonic Velocities, by A. N. Ikhitaryan & M. P. Ovsyannikov.  
RUSSIAN, per, VUZ, Izv., Aviatsionnaya Tekh., Vol 10, No 1, 1967, pp 125-127.  
Dept of Navy/APL/JHU TO 230-T541

Scientific  
Physics (Contd)

Approximate Solution of a Radiation Transfer Problem, by S. P. Detkov.  
RUSSIAN, per, VUZ, Izv. Fiz., No 2, 1967, pp 121-125.  
Dept of Navy/APL/JHU T-2116

On the Nature of High-Voltage Photo-Emf in Thin Semiconductor Layers, by N. F. Kovtonyuk & V. F. Fedonin.  
RUSSIAN, per, VUZ, Izv. Fiz., No 6, 1967, pp 40-43.  
Dept of Navy/APL/JHU T-2113

A Scheme of Flow Over a Plate with Partial Cavitation, by A. V. Kuznetsov & A. G. Terent'ev.  
RUSSIAN, per, VUZ, Izv. Mat., No 11, 1967, p 43.  
\*Dept of Navy/APL/JHU J-1151

Mixing of Ruby and Neodymium Laser Outputs, by N. N. Baleeva.  
RUSSIAN, per, IVUZ, Radiofizika, Vol 10, No 2, 1967, pp 294-296.  
\*FTD-HT-23-212-68

Propagation of Short-Duration Light Flashes in a Turbid Medium, by A. M. Balyantsev.  
RUSSIAN, per, IVUZ, Radiofizika, Vol 10, No 4, 1967, pp 489-497.  
\*FTD-MT-24-63-68

The Quantum Yield of Thermoluminescence of  $\text{CaSO}_4\text{-Mn}$  Phosphor in the 113-0.0048 Å Range, by V. A. Arkhangel'skaya, T. K. Razumova.  
RUSSIAN, per, Optika i Spektroskopiya, Sbornik Statey. Tom 1, Lyuminestsentsiya, 1963, pp 303-305.  
Dept of Navy/NRL Trans No 1141

Closed Magnetic Trap with a Helical Field "Sirius", by O. V. Biryukov & P. Ya. Durchenko.  
RUSSIAN, rpt, Physico-Technical Institute Academy of Sciences of the Ukrainian SSR, Dec 1967, pp 1-18.  
AEC-MATT-Trans-45 P911031568

Divertor of the "Sirius" Stellarator, by O. V. Biryukov & A. V. Georgievskii.  
RUSSIAN, rpt, Physico-Technical Institute Academy of Sciences of the Ukrainian SSR, Dec 1967, pp 1-33.  
AEC-MATT-Trans-46

Scientific  
Physics (Contd)

Miniaturized Semiconductor Pressure and Temperature Sensors, by V. M. Akhutin & L. A. Osipovich.  
RUSSIAN, per, Pribory i Sistemy Upravleniya, No 7, 1967, pp 50-51.  
Dept of Navy/APL/JHU T-2121

Application of the Galyerkin Method to the Problem of the Stability of Unevenly Heated Liquids, by E. M. Zhukhovitskii, 15 pp.  
RUSSIAN, per, Prikl Mat i Mekh, Vol 18, No 2, 1954, pp 205-211.  
P911042868  
AEC-IS-Tr-74

Information Transfer in an Ideal Photon Channel, by L. B. Levitin.  
RUSSIAN, per, Problemy Peredachi Informatsii, Vol 1, No 3, 1965, pp 71-80.  
P100044368-V  
FTD-MT-24-151-67

Investigation of the Electrical Breakdown of Thin Layers of Organic Glass and Celluloid, by V. A. Kostygin.  
RUSSIAN, per, Sb. Proboy Dielektrikov I Poluprovodnikov, 1964, pp 174-176.  
P100044468-V  
FTD-MT-24-148-67

Electrical Strength of Oxide Films on Aluminum, by L. L. Odyets & F. S. Platonov.  
RUSSIAN, per, Sb. Proboy Dielektrikov I Poluprovodnikov, 1964, pp 319-322.  
P100044468-V  
FTD-MT-24-148-67

Spectra of Thermal and Induced Scattering of Light and Nonlinear Optical Phenomena, by I. L. Fabelinskiy.  
RUSSIAN, bk, Spektry Teplovogo i Vynuzhennogo Rasseyaniya Sveta i Nelineinye Opticheskie Yavleniya, Nauka, 1969.  
\*Plenum Press

Heat Transfer from the Gas to the Blade Surface Under Realistic Conditions of Gas-Turbine Operation, by Ye. R. Plotkin & Ye. I. Molchanov.  
RUSSIAN, per, Teplo-i Massopereenos, Vol 6, 1966, pp 284-290.  
\*NASA TT F-11.448

Photographic Pyrometry, by Yu. P. Shramko.  
RUSSIAN, per, Teplofizika Vysokikh Temperatur, Vol 5, No 2, 1967, pp 367-372.  
NASA TT F-11.407



Scientific  
Physics (Contd)

Heat Transfer, by S. N. Shorin, 601 pp.  
RUSSIAN, bk, Teplotperedacha, 1964, pp 1-490.  
P100045368-V  
FTD-HT-66-541

Influence of Pressure on Indices of Combustion  
Processes and Heat Exchange in Heat-Resistant  
Combustion Chambers, by V. M. Ivanov.  
RUSSIAN, per, AN SSSR, Institut Goryuchikh  
Iskopayemykh. Trudy, No 56, 1965, pp 40-64.  
P100043868-V  
FTD-MT-24-136-67

About Certain Possibilities of a Model of Radio-  
active Analysis of Especially Cleaned Substances,  
by I. A. Maslov and A. P. Obukhov, 7 pp.  
RUSSIAN, rpt, Trudy I Vsesoyuznogo Koordinat-  
sionnogo Soveshchaniya po Aktivatsionnomu  
Analizu, 1964, pp 28-32. P100048168-V  
FTD-HT-66-566

Theory of the Absorption of Infrared Radiation  
by Imperfect Ionic Crystals, by I. P. Dayub.  
RUSSIAN, per, Ukrayins'kyi Fizychnyy Zhurnal.  
Vol 11, No 7, 1966, pp 752-758.  
\*FTD-HT-23-185-68

Spark Spectrometer for High Energy Particles, by  
Zh. S. Takibayev, 12 pp.  
RUSSIAN, per, AN KAZSSR, Vestnik, No 8, 1965,  
pp 3-9. P100046368-V  
FTD-HT-23-743-67

High-Density Electron-Hole Gas in Semiconductors.  
I, by S. B. Anokhin.  
RUSSIAN, per, Leningrad, Univ., Vestnik, Ser.  
Fiz. Khim., No 4, 1967, pp 36-41.  
Dept of Navy/APL/JHU TG 230-T540

On Stability of Motion with Constantly Acting  
Perturbations, by A. A. Tikhonov.  
RUSSIAN, per, Leningrad, Universitet, Vestnik.  
Seriya Matematiki, Mekhaniki I Astronomii, No 1,  
1965, pp 95-101.  
P100044068-V  
FTD-MT-24-168-67

An Apparatus for Differential-Thermal Analysis  
or Isothermal Decomposition with Simultaneous  
Mass-Spectrometric Analysis, by R. N. Isayev.  
RUSSIAN, per, Zhurnal Fizicheskoy Khimii, Vol 41,  
1967, pp 2398-2399.  
\*NASA TT F-11,460

Scientific  
Physics (Contd)

Electrode-Adjacent Layers on "Hot" Electrodes,  
by G. A. Lyubimov.  
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i  
Tekhnicheskoy Fiziki, No 4, 1965, pp 45-53.  
P100045168-V  
FTD-MT-24-276-67

The Break-Up of a Liquid Jet, by V. A. Ivanov.  
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i  
Tekhnicheskoy Fiziki, No 4, 1966, pp 30-37.  
\*FTD-HT-23-206-68

Calculation of Heat Transfer in Nozzles, by B.  
P. Mironov.  
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i  
Tekhnicheskoy Fiziki, No 4, 1966, pp 116-120.  
\*FTD-HT-23-206-68

The Influence of the Compressibility and Noniso-  
thermal Condition of Gas on the Effectiveness of  
Cooling, by E. P. Volohkov.  
RUSSIAN, per, Zhurnal Prikladnoy Mekhaniki i  
Tekhnicheskoy Fiziki, No 4, 1966, pp 126-129.  
\*FTD-HT-23-206-68

Investigation of the Cylindrical Waves in Rarefied  
Plasma, by Yu. A. Berezin & R. Kh. Kurtmullayev.  
RUSSIAN, per, Zhurnal prikladnoy mekhaniki i  
tekhnicheskoy fiziki, No 1, 1967, pp 116-124.  
\*FTD-MT-24-76-68

Resonance Forced Combinational Scattering, by  
P. A. Apanasevich and D. N. Ordabayev, 15 pp.  
RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii.  
Vol 4, No 2, 1966, pp 134-141. P100051468-V  
FTD-MT-66-87

System of Synchronisation of Starting for Laser  
with Pulse Quality, by V. A. Pilipovich and Yu.  
F. Morgun, 3 pp.  
RUSSIAN, per, Zhurnal Prikladnoy Spektroskopii.  
Vol 4, No 2, 1966, pp 179. P100051468-V  
FTD-MT-66-87

Use of Infrared Spectroscopy to Determine  
Structural Changes in Ion-Exchange Strengthening  
of Glass, by K. K. Yevstrop'yev & O. V. Zhukovskaya.  
RUSSIAN, per, Zhurnal prikladnoy spektroskopii.  
Vol 6, No 5, 1967, pp 680-681.  
\*FTD-HT-23-276-68

Scientific  
Physics (Contd)

Sulfide Rectifier, by Yu. A. Dunayev & B. V. Kurchatov.  
RUSSIAN, per, Zhurnal Tekhnicheskoy Fiziki SSSR, Vol 10, No 22, 1940, pp 1857-1870.  
\*NASA TT F-11,450

Mechanism of the Formation of Radicals During Radiolysis of Aromatic Compounds in the Solid Phase, by N. Ya. Buben & I. I. Chkheidze.  
RUSSIAN, per, Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva, Vol 11, No 2, 1966, pp 228-233.  
\*ACSI J-4588  
ID 2204012868

Numerical Definition of the Supersonic Flow of a Viscous Gas Around a Blunt Body, by A. I. Tolstykh, 11 pp.  
RUSSIAN, per, Zhurnal Vychislitel'noy Matematiki i Matematicheskoy Fiziki, No. 1, Vol. 6, Jan-Feb 1966, pp. 113-120.  
JPRS 44,459

Supersonic Flow of a Gas Around a Blunt-Nosed Cone Taking Radiation Into Account, 7 pp.  
RUSSIAN, per, Zhurnal Vychislitel'noy Matematiki i Matematicheskoy Fiziki, No. 4, Vol. 7, 1967, pp. 933-937.  
JPRS 44,459

The Effect of Surface Phenomena on Transfer Processes, by I. T. E'liprin, B. M. Smol'skiy.  
BELORUSSIAN, per, Vestsi Akad Navak BSSR, Ser Fiz Tekh Navak, No 2, 1965, pp 39-44.  
Dept of Navy/NRL Trans No 1129

Deposition Chamber for Epitaxial Growth, by Jura J. Eokstein, Pavel Polivka, 6 pp.  
CZECH, per, Ceskoslovensky Casopis Pro Priradu, Vol 15, No 6, 1964, pp 531-534. P160045968-V  
FTD-HT-67-125.

Scientific  
Physics (Contd)

Determination of Plutonium in Plutonium-Aluminum Alloys by X-Ray Fluorescence, by M. Ganivet and Th. Arnal. 7 pp.  
DUTCH, per, Anal Chim Acta, No. 39, 1967, pp 73-79.  
AEC-BNWL-Tr-24

Information Processing in the Functional Visual Field, by A. F. Sanders.  
DUTCH, rpt, Report IZF 1967-6: TDCK-47866, Soesterberg, Netherlands, 1967, 14 pp.  
\*NASA TT F-11.408

NMR and ESR Spectra of Lithium Platelets in LiF, by C. Taupin, 9 pp.  
FRENCH, per, Academie des Sciences, Paris. Comptes Rendus. Series B, Vol 262, 1966, pp 1617-1620. P911049068  
AEC UCRL-Trans-10151

Calculation of the Forces Acting on an Impurity of a Metal Subjected to a Temperature Gradient, by M. Gerl.  
FRENCH, rpt, Commissariat a l'Energie Atomique, Saclay, France, Report CEA-R3096, Dec 1966, 37 pp.  
\*NASA TT F-11,409

Industrial Technology of the Antimony-Cesium Photoemissive Layer, by G. Marandas.  
FRENCH, per, Conservatoire National des Arts et Metiers, Thesis, 1958.  
AEC UCRL-Tr-10201 P911064268-V

Calculation of the Turbulent Boundary Layer and of Transition on a Plane Plate, by R. Hirsch.  
FRENCH, rpt, Essai de Calcul de la Couche Limite Turbulente et de la Transition sur une Plaque Plane, No 393, 1963. P910070568-V  
NASA TT F-520

A Numerical Method for Analyzing Gamma Spectra, by J. P. Flandre, 12 pp.  
FRENCH, per, International Journal of Applied Radiation and Isotopes, Vol 18, 1967, pp 337-343.  
P500039368-V  
Dept of Navy NIC Tr 2523

High-Resolution Qualitative Analysis by Filtered Electronic Images, Part I, by A. El Hill, 38 pp.  
FRENCH, per, Journal de Microscopie, Vol 5, 1966, pp 669-670. P911049368  
AEC UCRL-Trans-10184

Scientific  
Physics (Contd)

Kinetic Study of Scintillation in Pure Organic Crystals, by D. Blanc, F. Cambou, 25 pp.  
FRENCH, per, Journal de Physique, No 25, Mar 1964, pp 319-325. P911064068-V  
AEC-UCRL-Tr-10166

Internal Conversion Coefficients for Isomeric Transitions of Some Stable Nuclei, by I. Antonova and U. Estulin, 9 pp.  
FRENCH, per, J. Phys. Radium, Vol 16, 1955, pp 534-537 P911013368  
AEC ORNL-TR-692

Report of Activities of 1st Trimester 1967.  
FRENCH, rpt, Nuclear Research Centers at Cadarache, Fontenay-aux-Roses, Saclay, 1967. P911083068-V  
AEC ORNL-Tr-1764

Calculation of the Turbulent Boundary Layer and of Transition on a Flat Plate, by R. Hirsch.  
FRENCH, rpt, Publications Scientifiques et Techniques du Ministere de l'Air, No 393, 1963, 188 pp.  
NASA TT F-520

Spectacles, by Emile Demeaux.  
FRENCH, Patent No. 1,175,944  
Dept of Comm  
Patent Office

On the Theory of the Contact of Solid Elastic Bodies, by M. T. Huber.  
GERMAN, per, Annalen der Physik, Vol 14, Ser 4, pp 153-163.  
Dept of Navy NIC tr 2530

Physics of Aerial Photography in True and False Colors, by F. L. Corten.  
GERMAN, per, Bildmessung Und Luftbildwesen, Vol 34, 1 Dec 1966, pp 191-198.  
ACSI J-4359  
ID 2204006168

Determination of the Dose Buildup Factors for Gamma-Rays in the Energy Region of 0.5 to 15 MeV in Laminated Shields of Iron and Water, by H. G. Vogt.  
GERMAN, rpt, Hannover Institute of Technology. P911085368-V  
AEC-ORNL-Tr-1856

Effect of Curved Surfaces on Turbulent Boundary Layers, by H. Wilcken.  
GERMAN, per, Ingenieur-Archiv, Vol 1, No 4, 1930, pp 357-376.  
NASA TT F-11,421

Scientific  
Physics (Contd)

Determination of the Surface of Arbitrarily shaped Bodies with Particular Application to Microscopic Accumulations, by August Hennig  
GERMAN, per, Mikroskopie, No. 11, 1956. pp 1-20.  
\*AEC

Plastic Deformation of Cobalt Single Crystals, by A. Seeger, H. Kronmüller, 28 pp.  
GERMAN, per, Phys Status Solidis, Vol 3, 1963, pp 1107-1125. P911066368-V  
AEC ORNL-Tr-1823

Stability Tests on Boiling Water Reactors, by Dr. Hold & Kraemer.  
GERMAN, rpt, US/Euratom R&D Program, Spec Rpt No 1, 1 Jan-31 Dec 1966. P911045468  
AEC-EURASC-1917

A Wave-Mechanical Calculation of the Scattering of Neutrons by Magnetised Crystals, by W. Doring.  
GERMAN, per, Z. fuer Ange. Phys., Vol 20, pp 311-317.  
AEC-AERE-TRANS 1075

A Simple Approximation Formula for Determining the Resonant Frequency of the Cavity Magnetron, by F. Borgnis.  
GERMAN, per, Zeitschrift fur angewandte Physik, Vol 11, No 7, 1950, pp 278-280.  
Dept of Navy/APL/JHU T-2120

An Investigation of Axial Hypersonic Flow Over a Slender Elliptic Cone, by Gerhard Kausche.  
GERMAN, per, Z. Flugwiss, Vol 10, No 15, 1967.  
Dept of Navy NIC tr 2563

H. F. Weber's Method of Determining the Diffusion Coefficients of Salt Solutions, by Friedrich Hoeltzenbein, 13 pp.  
GERMAN, per, Zeitschrift fur Physik, Vol 24, 1924, pp 1-9. P911049968  
AEC UCRL-Trans-10153

A New Method for the Measurement of Very Low Vapor Pressures. The Vapor Pressures of Mercury and of Potassium, Part III, by H. Mayer, 40 pp.  
GERMAN, per, Zeitschrift fur Physik, Vol 67, 1931, pp 240-263. P911046168  
AEC UCRL-Trans-10198

Separation of Isotopes in the Temperature Range in which Dissociation Processes Occur, by U. Fric.  
GERMAN, per, Zeitschrift fur Z. Phys., Vol 185, 1965, pp 493-506. P911082260-V  
AEC-ORNL-TR 1473

Scientific  
Physics (Contd)

Non-Linear Deflection Theory of Sandwich Plates,  
Part II, by V. Dundrova.  
HUNGARIAN, per, Acta Technica Academiae Scientiarum  
Hungaricae, Vol 55, No 1-2, 1966.  
ACSI J-4411  
ID 2204007468

Non-Linear Deflection Theory of Sandwich Sheets,  
Part III, by V. Dundrova.  
HUNGARIAN, per, Acta Technica Academiae Scientiarum  
Hungaricae, Vol 57, No 1-2, 1967, pp 19-32.  
ACSI J-4412  
ID 2204007568

Radioluminescence Obtained with  $\beta$  Radiation  
from Promethium-147. Construction of Luminous  
Sources, by M. Serra, 8 pp.  
ITALIAN, per, La Ricerca Scientifica, Vol  
36, 1966, pp 662-664. P911047068  
AEC UCRL-Trans-10181

Photoelastometric Determination of the Stress  
State in the Zone Close to Cracks in a Circular  
Plate with a Central Hole and Other Regularly  
Spaced Peripheral Holes on Application of Uniform  
Pressure to the External Cylindrical Surface, by  
M. Belgrado & B. Guerrini.  
ITALIAN, rpt, Universita di Pisa, Facolta di  
Ingegneria, Istituto di Impianti Nucleari, 25 pp.  
NASA TT F-11,371

Flame Propagation into the Gap of Solid Propellant  
Grain (I), by T. Godai.  
JAPANESE, rpt, Aeronautics and Space Technology  
Institute. P911041168  
AEC LA-Tr-67-38

Analysis of Photoneutron Flux Distribution in  
Water-Shielded Reactors, by Takashi Tagami &  
Mitsuyuki Kitazume.  
JAPANESE, per, J. Atomic Energy Soc. Japan,  
Vol 8, No 1, Jan 1966, pp 12-15.  
AEC-NSJ-Tr-93 P911066768-V

Wide-Band Quasi-Optic Prism Components, by  
T. Sueta.  
JAPANESE, per, Journal of the Institute of  
Electrical Engineers of Japan, Vol 49, No 3,  
1966, pp 457-462.  
\*NASA TT F-11,467

Effect of Polymer Surfactant Complexes on Urea,  
by I. Maruta.  
JAPANESE, per, Kogyo Kagaku Zasshi, Vol 70,  
No 8, 1967, pp 1395-1398.  
ACSI J-3900  
ID 2204058567

Scientific  
Physics (Contd)

Preparation of Organic Semiconducting Poly-  
mers and Their Characteristics, Part III.  
by T. Prot, et al.  
POLISH, per, Polimery Tworzywa Wielkoczas-  
teczkowe, No 10, Vol 7, Nov 1967, pp 449-452.  
\*ACSI J-4435  
ID 2204008368

Seminar on Problems of Applied Magneto-hydro-  
dynamics, Jena, East Germany, April 26-29, by  
L. Rothhardt & Z. Bayer.  
POLISH, per, Polska Akademia Nauk, Instytut  
Maszyn Przeplywowych, Prace., No 34, 1967,  
pp 1-217.  
\*FTD-HT-23-271-68C

Propulsion & Fuels

Building of Gas Turbines for Main Gas  
Pipelines, by L.A. Kuznetsov, 7 pp.  
RUSSIAN, monthly, Gazovaya Promyshlennost',  
No. 12, Moscow, Dec 67, pp. 1-4.  
JPRS 44,499

Gas and Thermodynamics of Solid Fuel Rockets,  
by R. E. Sorkin.  
RUSSIAN, bk, Gazotermidynamika Raketykh Dvigateli  
Na Tverdom I Toplivo, Nauka Press (FML), Moscow,  
1967, 368 pp.  
\*FTD-MT-24-78-68

Self-Modeling Problems of Flow of a Combustible  
Gas Mixture Around Bodies, by G. G. Chernyy.  
RUSSIAN, per, AN SSSR, Izvestiya, Mekhanika  
Zhidkosti i Gaza, No 6, 1966, pp 10-24.  
P100044868-V  
FTD-MT-24-299-67

The Production of High-Octane Gasoline in  
Catalytic Reforming Pilot Plant, by A. P. Federov.  
RUSSIAN, per, Khimiya i Tekhnologiya Topliv i  
Masel, No 1, Jan 1967.  
ACSI J-2735  
ID 2204026367

Fifty Years of Oil Refining and  
Petrochemistry, by V.S. Fedorov,  
10 pp.  
RUSSIAN, per, Neftepromyshlennost' i  
Neftekhimiya, Nos 10/11, Moscow,  
Oct-Nov 67, pp. 1-6.  
JPRS 44,605

Scientific  
Propulsion & Fuels (Contd)

Oil Refining and Petrochemistry Develops in Azerbaydzhan, by M.A. Mamedov, 6 pp.  
RUSSIAN, per, Neftepererabotka i Neftekhimiya, Nos 10/11, Moscow, Oct-Nov 67, pp. 7-12.  
JPRS 44,605

Development of Oil Refining and Petrochemical Industry in the Ukraine, by V.M. Bayevich, 5 pp.  
RUSSIAN, per, Neftepererabotka i Neftekhimiya, Nos 10/11, Moscow, Oct-Nov 67, pp. 13-16.  
JPRS 44,605

Development of Oil Refining at Novokuybyshevskiy Refinery, by P.N. Uzunkoyan and A.M. Shevtsov, 6 pp.  
RUSSIAN, per, Neftepererabotka i Neftekhimiya, Nos 10/11, Moscow, Oct-Nov 67, pp. 38-41.  
JPRS 44,605

The Omsk Oil Refinery, by M.N. Ivonina and V.M. Sinitsyn, 6 pp.  
RUSSIAN, per, Neftepererabotka i Neftekhimiya, Nos 10-11, Oct-Nov 67, pp. 46-51.  
JPRS 44,605

Report on Oil Refinery Imeni the 40th Anniversary of Uzbekistan, by V.V. Verba, 5 pp.  
RUSSIAN, per, Neftepererabotka i Neftekhimiya, Nos 10-11, Oct-Nov 67, pp. 56-58.  
JPRS 44,605

Research of the VNIINP for the Oil Refining Industry of the Soviet Center and East, by I.F. Blagovidov, 6 pp.  
RUSSIAN, per, Neftepererabotka i Neftekhimiya, Nos 10-11, Oct-Nov 67, pp. 71-74.  
JPRS 44,605

Scientific  
Propulsion & Fuels (Contd)

The Role of VNIIPKNEFTKHM in Developing Ukrainian Oil Refining and Petrochemistry, by V.T. Sklyar, 5 pp.  
RUSSIAN, per, Neftepererabotka i Neftekhimiya, Nos 10-11, Oct-Nov 67, pp. 91-93.  
JPRS 44,605

Role of Giproneftezavody in Developing Soviet Oil Refining, by T.F. Slepukha, et al, 6 pp.  
RUSSIAN, per, Neftepererabotka i Neftekhimiya, Nos 10-11, Oct-Nov 67, pp. 93-99.  
JPRS 44,605

Method of Integral Relations in the Theory of Turbulent Jet Streams, by A. S. Ginevskii.  
RUSSIAN, per, Promyshlennaya Aerodinamika, No 27, 1966, pp 5-30.  
Dept of Navy/APL/JHU TG 230-T537

Rockets of Peace and War, by V. P. Petrov.  
RUSSIAN, bk, Rakety Mira U Voiny, 1963, pp 1-172.  
P100365167-V  
FTD-MT-65-175

Calculation of the Temperature Fields in a Blade of a High-Temperature Gas Turbine During Internal Cooling, by L. M. Zysina-Molozhen & M. P. Polyak.  
RUSSIAN, per, Teplota i Massoperecheniya, Vol 6, 1966, pp 261-271.  
\*NASA TT F-11,183

Increasing the Reliability of a Jet Igniter, by Yu. N. Savelyev & G. S. Batyuk.  
RUSSIAN, rpt, Vestn. Kiyevsk. politekhn. in-ta. Ser. teploenerg., No 1, 1964, pp 40-44.  
\*FTD-MT-24-92-68

Determination of the Thermal Conductivity, the Specific Heat and the Weight by Volume Gross Density of Insulations for Rocket Tanks Filled with Liquid Hydrogen. Part I. Description of Liquid Hydrogen, by B. Koglin & W. F. Zimni.  
FRENCH, per, ELDO/CECLES Revue Technique, Vol 2, 1967, pp 3-28.  
\*NASA TT F-11,146

Scientific  
Propulsion & Fuels (Contd)

The Importance of Solid Fuel Rockets (Missiles) for Field Artillery, Anti-Tank Warfare and Air Defense, 30 pp.

GERMAN, per, Allgemeine Schweizerische Militärzeitschrift, No 1, 1968, pp 20-28.

ACSI J-4525  
ID 2204010668

Proceedings of the Joint Meeting of the Committee on Air Breathing Engines and the Subcommittee on Aerodynamic Measuring Techniques, Held in Aachen, July 6, 1962, by P. Stottmann.

GERMAN, rpt, Wissenschaftliche Gesellschaft für Luft-und Raumfahrt, Rpt No 1/1963, 1963, 129 pp.  
NASA TT F-11,096

Space Technology

Ten Years of Space Research in the USSR, by M. K. Tikhonravov & B. V. Raushenbakh.

RUSSIAN, per, Moscow, Kosmicheskiye Issledovaniya, Vol V, No 5, 1967, pp 643-679.

\*FTD-HT-23-233-68C

Space Communication Systems and Information Transmission, by Yu.K. Khodarev, 9 pp.

RUSSIAN, journal, Kosmicheskiye Issledovaniya, Vol. 5, No. 5, Moscow 67, pp. 680-685.

JPRS 44,462

Spacecraft Environment and Tolerance to Hypoxia, by N. A. Agadzhanian.

RUSSIAN, rpt, Report Presented at the Eighteenth Congress of the International Astronautical Federation, Belgrade, 25-30 Sept 1967, 12 pp.

NASA TT F-11,405

Autonomous Control of a Spacecraft in the Problem of Rendezvous with a Moving Object, by A. I. Bogomolov.

RUSSIAN, per, Trudy: Kazan, Aviatzionnyy Institut, No 89, 1965, pp 41-47.

\*FTD-HT-23-229-68

Composite Materials in Rocket Technology (Survey).

RUSSIAN, per, Vopr. Raketh. Tekhn. Teoriya i Prakt. Raketostrona Rubezhnoe, No 2, 1966, pp 32-45.

\*FTD-T-24-96-63

Scientific  
Space Technology (Contd)

A Working Day at Rocket Launch Sites, 11 pp.  
BULGARIAN, per, Front, Br 26, 18 Dec 1966, pp 10-13.

DIA LN 261-68

The French Geodetic Satellites Diademe I and II: Practical Contribution to Navigation by Satellite, by J. C. Husson & A. Banchereau.

FRENCH, rpt, Centre National d'Etudes Spatiales, France, Paper Presented at the Fourteenth Symposium on Advanced Techniques of Navigation, organized by AGARD, Milan, 12-15 Sept 1967, 19 pp.

\*NASA TT F-11,451

The Eldo Carrier Rocket, by G. Mandel, 31 pp.

GERMAN, per, Flugwelt, June 1967, pp 418-426.

DIA LN 13-68

Miscellaneous

Review of the Press, 15 pp.

RUSSIAN, per, Central Korean Telegraph Agency, 31-Aug 1967, pp 1-15.

DIA LN 388-68

Mechanism of Adaptation to Extreme Effects in an Experimental Environments, by P. K. Isakov.

RUSSIAN, rpt, Mechanism of Adaptation to Extreme Effects in an Experimental Environments, 9 pp.

ACSI J-4288

ID 2204003668

In the Name of Vladimir Ilich, by P. Machul'skiy.

RUSSIAN, per, Morski Flot, Vol 10, Oct 1967, pp 10-11.

DIA LN 464-68

Maritime Transport Seeks New Success in 1968, by T. Guzhenko, 7 pp.

RUSSIAN, per, Morskoy Flot, Moscow, No. 1, Jan 68, pp. 1-2.

JPRS 44,588

The Blast at Medeo, by M. Dokuchayev, 8 pp.

RUSSIAN, per, Nauka i Zhizn', No 3, 1967, pp 100-103.

AMC UCRL-Trans-10199

Scientific  
Miscellaneous (Contd)

Creative and Exploratory Explosions, by  
A. Romashov and B. Melovatskiy, 13 pp.  
RUSSIAN, per, Nauka i Zhizn', No 3, 1967,  
pp 104-108. P911046068  
ABC UCRL-Trans-10199

Meeting of USSR Academy of Sciences  
and Council of Scientific-Technical  
Societies, 6 pp.  
RUSSIAN, per, Nauchno-tekhnicheskiye  
Obshchestva SSSR, No. 11, Moscow,  
1967, pp. 14-15.  
JPRS 44,562

Report on Siberian Department of  
USSR Academy of Sciences, by A.  
Shcherbakov, and F. Baturin, 8 pp.  
RUSSIAN, per, NTS SSSR, No. 12,  
Moscow, Dec 67, pp. 26-28.  
JPRS 44,649

People's Control Groups in Soviet  
Scientific Institutions, by B. Paton,  
3 pp.  
RUSSIAN, newspaper, Pravda, Moscow, 17  
Nov 67, p. 3.  
JPRS 44,616

Recent Developments in the Field of  
Inventions and Patents, 3 pp.  
RUSSIAN, newspaper, Pravda Ukrainy,  
Kiev, 12 Dec 67, p. 2.  
JPRS 44,625

Burning Blast-Furnace Gas Together with Natural  
or Coke-Oven Gases, by M. I. Leifman.  
RUSSIAN, per, Promyshlennaya Energetika, Vol 18,  
No 1, 1963, pp 21-24.  
HB 7393

Selected Articles from Rybnoye Khozyaystvo, 14 pp.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 9,  
1967.  
\*CFSTI TT 67-51429/9

Selected Articles from Rybnoye Khozyaystvo, 32 pp.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No  
10, 1967.  
\*CFSTI TT 67-51429/10

Scientific  
Miscellaneous (Contd)

Appeal to the Fishery Scientists and Workers of  
the Fishing Industry (Passed by the Anniversary  
Session of the Nation's Marine Fishery Institutes  
held in August 1967 in Murmansk).  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 10,  
1967, pp 21-22.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Selected Articles from Rybnoye Khozyaystvo,  
19 pp.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No  
11, 1967.  
\*CFSTI TT 67-51429/11

Anniversary Session of the Marine Fishery  
Institutes, by A. S. Bogdanov.  
RUSSIAN, per, Rybnoye Khozyaystvo, Vol 43, No 11,  
1967, pp 15-17.  
\*Dept of Interior  
Bureau of Commercial Fisheries  
Branch of Foreign Fisheries

Results of Scientific Observations During the  
Blast in Medeo, by F. F. Aptikayev, I. V.  
Gorbunova, 30 pp.  
RUSSIAN, per, Vestnik Akademii Nauk Kazakhskoy  
SSR, Vol 23, No 5, 1967, pp 30-40. P911014968  
ABC-UCRL-Tr-10136

Collectanea of the Chinese Academy  
of Sciences' Conference on Trace  
Elemental Research Work, 5 pp.  
CHINESE, preface and table of contents,  
Peking, Jan 64, pp. ii, iii, and v-vi.  
JPRS 44,574

The Steel Path to Escape, 13 pp.  
CZECH, per, Zelesnicar, Apr 1967, pp 1-4.  
DIA LN 275-68

Untying the Prague Knot.  
CZECH, per, Zelesnicar, Apr 1967, pp 1-4.  
DIA LN 275-68

Technical Specifications.  
FRENCH, rpt, No 1988; No 2023A; No 2059; No 1996,  
24 pp; 11 pp; 20 pp; 17 pp.  
\*ACSI J-4599  
ID 2204013268

Scientific  
Miscellaneous (Contd)

Documentary Notes and Studies (Great French Cities-Toulouse), by P. Y. Pechoux, 91 pp.  
FRENCH, per, Documentaires, Toulouse, Dec 1967, pp 5-53.  
DIA LN 399-68

Inacol Monthly Bulletin.  
FRENCH, per, Institut Pour L'Amelioration des Conserves de Legumes As.B.L. Wezwmbeek-Oppen, 1967, pp 1-33.  
ACSI J-2627  
ID 2204023867

News Scripts.  
GERMAN, per, Deutsche Eisenbahn Technik, May 1967, p 227.  
DIA LN 107-68

Picture Series from the Fair Rail Cars, 35 pp.  
GERMAN, per, Deutsche Eisenbahn Technik, May 1967, pp 247-249.  
DIA LN 107-68

The Contribution of Belgium to the European Space Program.  
GERMAN, per, Flugwelt, June 1967, pp 418-426.  
DIA LN 13-68

On the Scientific Relationship in Plant Protection Research between Institutes in the Soviet Union and in the German Democratic Republic, 23 pp.  
GERMAN, per, Nachrichtenblatt fur den Deutschen Pflanzenschutzdienst, No 10, 1967, pp 185-194.  
ACSI J-3996  
ID 2204060767

Investigations on the Perception of the Gravity Stimulus, by C. J. Rutten-Pekelharing, 78 pp.  
GERMAN, per, Besuch des Travaux Botaniques Yearlandais, Vol 7, 1910, pp 241-344. P911065768-V  
ABC AML-Tr 545

A Short Review of Railroad News, by E. Munkelt & G. Peterhansel, 10 pp.  
GERMAN, per, Vog Verlag Technik, Jul 1967, pp 330-332; 352.  
DIA LN 109-68

Report on the Sio Congress, by T. Lajos, 11 pp.  
HUNGARIAN, per, Kozlekedestudományi Szemle, No 3, Mar 1964, pp 134-137.  
DIA LN 451-468

Scientific  
Miscellaneous (Contd)

Table of Contents.  
HUNGARIAN, per, Vasut, Vol XVII, No 8, Aug 1967, pp inside cover & 22.  
DIA LN 443-68

OPV (Collective Freight Car Park) Works Successfully, by Ladislav Osvath, 5 pp.  
HUNGARIAN, per, Vasut, Vol XVII, No 8, Aug 1967, pp 22.  
DIA LN 443-68

Adventure in the Sahara, by L. Pellegrini, 37 pp.  
ITALIAN, per, Atlantic, No 30, June 1967, pp 14-33.  
DIA LN 15-68

Sixteenth Meeting for Study of Science and Technology of Neighboring Countries.  
JAPANESE, per, Society for Study of Science and Technology of Neighboring countries - Machinery Promotion Association (Foundation) Economics Research Lab.  
Dent of Navy NIC tr 2566

Let Us Sail Through These Brazils, by Geraldo Camara & Luis Clovis de Oliveira, 13 pp.  
PORTUGUESE, per, Amazonia Quer Solucao Brasileira Para Problema Nacional, Sept 1967, pp 10-13; 18-25.  
DIA LN 396-68

National Catalog on Packing (Canning), Packaging, and Applied Graphic Arts (Table of Contents).  
SPANISH, rpt, Catalogo Nacional Del Envase, Embalaje y Artes Graficas Aplicadas, 1967-1968, pp 3-6.  
ACSI J-4031  
ID 2204061467

Billigare Mjolk Plastase. (English Title Unknown.)  
SWEDISH, per, Plastvarlden, No 10, 1967, p 71.  
\*ACSI J-4243  
ID 2204002568

Mjolkemballag i Norge. (English Title Unknown.)  
SWEDISH, per, Plastvarlden, No 10, 1967, p 72.  
\*ACSI J-4243  
ID 2204002568

Plastpaseen Danmarks mest Storste Mjolkforpackning (English Title Unknown)  
SWEDISH, per, Plastvarlden, No 10, 1967, p 73.  
\*ACSI J-4243  
ID 2204002568



Scientific  
Miscellaneous (Contd)

Far Pasnjolken Sista Ordet i Finland (English  
Title Unknown).  
SWEDISH, per, Plastvarlden, No 10, 1967, p 74.  
\*ACSI J-4243  
ID 2204002568

Chart (Photocopied) and Writing on Back of 3  
Small Photographs with List for Info.  
VIETNAMESE, rpt, IR 2856015568.  
\*ACSI J-4513  
ID Incl to IR 2856015568

INFORMATION RECEIVED DURING APRIL

ON COVER-TO-COVER TRANSLATIONS

- Acta Biochimica Polonica, Vol 14, No 4, 1967.  
CFSTI TT 67-56011/4
- Acta Physiologica Polonica, Vol 18, No 1, 1967.  
CFSTI TT 67-56010/1
- Acta Physiologica Polonica, Vol 18, No 2, 1967.  
CFSTI TT 67-56010/2
- Acta Poloniae Pharmaceutica, Vol 24, No 3, 1967.  
CFSTI TT 67-56005/3
- Archivum Immunologiae et Therapiae Experimentalis, Vol 25, No 5, 1967.  
CFSTI TT 67-56007/5
- Archivum Immunologiae et Therapiae Experimentalis, Vol 25, No 6, 1967.  
CFSTI TT 67-56007/6
- Biokhimiya, Vol 32, No 3, Part 2, May-Jun 1967.  
CB
- Biokhimiya, Vol 32, No 4, Part 1, Jul-Aug 1967.  
CB
- Doklady AN SSSR, Vol 176, No 4-6, Oct 67.  
Am Inst Phys  
Vol 12, No 10, Apr 1968
- Elektrokhimiya, Vol 3, No 9, 1967.  
CB
- Elektrokhimiya, Vol 3, No 10, 1967.  
CB
- Elektrosvyaz, Vol 21, No 10, 1967.  
IEEE
- Endokrynologia Polska, Vol 18, No 1-2, 1967.  
CFSTI TT 67-56009/1-2
- Fizika Tverdogo Tela, Vol 9, No 10, 1967.  
Am Inst Phys  
Vol 9, No 10, April 1968
- Folia Morphologica, Vol 26, No 2, 1967.  
CFSTI TT 67-56004/2
- Geologiya Nefti i Gaza, Vol 7, No 5, 1963.  
Petroleum Geology
- Gigiena i Sanitariya, Vol 32, No 4-6, Apr-Jun 1967.  
CFSTI TT 67-51409/2
- Geomagnetizm i Aeronomiya, Vol 7, No 4, 1967.  
American Geophysical Union
- Izvestiya AN SSSR, Atmosfery i Okeanologicheskii, Vol 3, No 8, 1967.  
American Geophysical Union
- Izvestiya Akademiy Nauk SSSR, Seriya Fizicheskaya, Vol 31, No 4, 1967.  
Columbia Technical Translations
- Izvestiya Akademiy Nauk SSSR, Fizika Zemli, No 7, 1967.  
American Geophysical Union
- Kolloidnyy Zhurnal, Vol 29, No 1, Jan-Feb 1967.  
CB
- Kolloidnyy Zhurnal, Vol 29, No 2, Mar-Apr 1967.  
CB
- Kolloidnyy Zhurnal, Vol 29, No 3, May-Jun 1967.  
CB
- Kosmicheskaya Biologiya i Meditsina, Vol 1, No 6, 1967.  
JPRS 44732

Kristallografiya, Vol 12, No 5, Sept-Oct 1967. Am Inst Phys Vol 12, No 5, Mar-Apr 1968	Tsvetnye Metally, Vol 39 No 11, 1966. Primary Sources Vol 7, No 11, 1966
Medycyna Doswiadczalna i Mikrobiologia, Vol 19, No 2, 1967. CFSTI TT 67-56006/2	Vesnik Primenjena Geofizika, Series C, No 7, 1966. CFSTI TT 66-59004/3
Medycyna Doswiadczalna i Mikrobiologia, Vol 19, No 3, 1967. CFSTI TT 67-56006/3	Zhurnal Prikladnoi Khimiy, Vol 40, No 6, 1967. CB
Optika i Spektroskopiya, Vol 23, No 5, Nov 1967. Optical Society of America	Zhurnal Prikladnoy Khimiy, Vol 40, No 7, 1967. CB
Przeglad Epidemiologiczny, Vol 21, No 1-2, 1967. CFSTI TT 67-56002/1-2	Zhurnal Strukturnoy Khimiy, Vol 7, No 1, Jan-Feb 1966. CB
Radiotekhnika, Vol 22, No 10, 1967. <u>IEEE</u>	Zhurnal Strukturnoy Khimiy, Vol 7, No 2, Mar-Apr 1966. CB
Rudarsko-Metalurski Zbornik, No 2, 1967. CFSTI TT 67-58017/2	Zhurnal Strukturnoy Khimiy, Vol 7, No 3, May-Jun 1966. CB
Staub, Vol 27, No 2, 1967. CFSTI TT 67-51408/2	Zhurnal Strukturnoy Khimiy, Vol 7, No 4, Jul-Aug 1966. CB
Staub, Vol 27, No 4, 1967. CFSTI TT 67-51408/4	Zhurnal Strukturnoy Khimiy, Vol 7, No 5, Sept-Oct 1966. CB
Staub, Vol 27, No 5, 1967. CFSTI TT 67-51408/5	Zhurnal Strukturnoy Khimiy, Vol 7, No 6, Nov-Dec 1966, CB
Staub, Vol 27, No 6, 1967. CFSTI TT 67-51408/6	Zhurnal Tekhnicheskoy Fiziki, Vol 37, No 10, 1967. American Inst Physics Vol 12, No 10, April 1968
Staub, Vol 27, No 7, 1967, CFSTI TT 67-51408/7	
Staub, Vol 27, No 8, 1967. CFSTI TT 67-51408/8	
Staub, Vol 27, No 9, 1967. CFSTI TT 67-51408/9	
Tsvetnye Metally, Vol 39, No 10, 1966. Primary Sources Vol 7, No 10, 1967	

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With the exception of certain trigonometric and hyperbolic functions, Soviet mathematical symbols are the same as those encountered in the American literature. For the reader's convenience a list of such exceptions and their American equivalents is given below.

Soviet Usage	American equivalent	Soviet Usage	American equivalent
Arch	coash-1	cosec	cot (ctn)
Arcth	coth-1 (ctnh-1)	ctg	cot (ctn)
Arsh	sinh-1	cth	coth (ctnh)
Arth	tanh-1	rot	curl
arccos	cos-1 (arc cos)	sch	sech
arctg	cot-1 (arc cot)	sh	sinh
arcsin	sin-1 (arc sin)	tg	tan
arctg	tan-1 (arc tan)	th	tanh
ch	coah		

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#### RUSSIAN ABBREVIATIONS IN TEXT

GIGKhS.....	State Institute of Chemical Raw Materials Obtained by Mining.
Gintsvetmet.....	State Institute of Non-Ferrous Metals.
Giprosvetmetobrabotka.....	State Design and Planning Scientific Research Institute for Working of Non-Ferrous Metals.
Giredmet.....	State Rare Metals Scientific Research Institute.
IGD.....	Mining Institute.
IGI.....	Institute of Mineral Fuels (in. G. M. Krzhishanovskii).
Izd-vo.....	Publishing House.
L-M.....	Leningrad-Moscow.
MEI.....	Moscow Institute of Energetics (in. Molotov).
Mekhanobr.....	Scientific Research Institute for Mechanical Concentration of Minerals.
NIM.....	Scientific Research Institute of Mathematics.
NTO.....	Scientific and Technical Division.
TU.....	Technical Specifications.
UFAN.....	Urals Branch of the Academy of Sciences of the USSR.
VAMI.....	All-Union Aluminum and Magnesium Institute.
VDS.....	All-Union Scientific Research Institute of Metrology and Standardization.

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AN SSSR.....	Academy of Sciences, USSR.
CC CPSU.....	Central Committee, Communist Party Soviet Union.
Gintsvetmet.....	State Institute of Non-Ferrous Metals.
Giredmet.....	State Rare Metals Scientific Research Institute.
Gosplan.....	State Planning Committee of the Council of Ministers of the USSR
IL.....	Foreign Literature Publishing House.
MGU.....	Moscow State University.
NTO.....	Scientific and Technical Division
TU.....	Technical Specifications.
TsIIN TsM.....	Central Office for Information on Non-Ferrous Metals.
UFAN.....	Urals Branch of the Academy of Sciences of the USSR.
VAMI.....	All-Union Aluminum and Magnesium Institute.
VUZ.....	Institute of Higher Education.

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Washington, D.C. 20505

7 September 2004

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Ft. Belvoir, VA 22060

Dear Ms. Schoen:

In February of this year, DTIC provided the CIA Declassification Center with a referral list of CIA documents held in the DTIC library. This referral was a follow on to the list of National Intelligence Surveys provided earlier in the year.

We have completed a declassification review of the "Non-NIS" referral list and include the results of that review as Enclosure 1. Of the 220 documents identified in our declassification database, only three are classified. These three are in the Release in Part category and may be released to the public once specified portions of the documents are removed. Sanitization instructions for these documents are included with Enclosure 1.

In addition to the documents addressed in Enclosure 1, 14 other documents were unable to be identified. DTIC then provided the CDC with hard copies of these documents in April 2004 for declassification review. The results of this review are provided as Enclosure 2.

We at CIA greatly appreciate your cooperation in this matter. Should you have any questions concerning this letter and for coordination of any further developments, please contact Donald Black of this office at (703) 613-1415.

Sincerely,

A handwritten signature in dark ink, appearing to read "Sergio N. Alcivar".

Sergio N. Alcivar  
Chief, CIA Declassification Center,  
Declassification Review and Referral  
Branch

Enclosures:

1. Declassification Review of CIA Documents at DTIC (with sanitization instructions for 3 documents)
2. Declassification Status of CIA Documents (hard copy) Referred by DTIC (with review processing sheets for each document)



## Processing of OGA-Held CIA Documents

The following CIA documents located at DTIC were reviewed  
by CIA and declassification guidance has been provided.

OGA Doc ID	Job Num	Box	Fldr	Doc	Doc ID	Document Title	Pub Date	Pages	Decision	Proc Date
AD0831939	78-03109A	59	1	2	123	Consolidated Translation Survey Through 31 March 1968	3/31/1968	252	Approved For Release	3/25/2004
AD0833917	78-03109A	59	1	3	124	Consolidated Translation Survey Through 30 April 1968	4/30/1968	223	Approved For Release	3/25/2004
AD0835906	78-03109A	59	1	4	125	Consolidated Translation Survey Through 31 May 1968	5/31/1968	267	Approved For Release	3/25/2004
AD0838252	78-03109A	59	1	5	126	Consolidated Translation Survey Through 30 June 1968	6/30/1968	341	Approved For Release	3/25/2004
AD0839299	78-03109A	59	1	6	127	Consolidated Translation Survey Through 31 July 1968	7/31/1968	354	Approved For Release	3/25/2004
AD0841414	78-03109A	59	1	7	128	Consolidated Translation Survey Through 31 August 1968	8/31/1968	255	Approved For Release	3/25/2004
AD0844244	78-03109A	59	1	8	129	Consolidated Translation Survey Through 30 September 1968	9/30/1968	259	Approved For Release	3/25/2004
AD0845247	78-03109A	60	1	1	130	Consolidated Translation Survey Through 31 October 1968	10/31/1968	252	Approved For Release	3/25/2004
AD0847806	78-03109A	60	1	2	131	Consolidated Translation Survey Through 30 November 1968	11/30/1968	284	Approved For Release	3/25/2004
AD0848152	78-03109A	60	1	3	132	Consolidated Translation Survey Through 31 December 1968	12/31/1968	176	Approved For Release	3/25/2004
AD0848841	78-03109A	60	1	4	133	Consolidated Translation Survey Through 31 January 1969	1/31/1969	188	Approved For Release	3/25/2004
AD0850186	78-03109A	60	1	5	134	Consolidated Translation Survey Through 28 February 1969	2/28/1969	167	Approved For Release	3/25/2004
AD0851748	78-03109A	60	1	6	135	Consolidated Translation Survey Through 31 March 1969	3/1/1969	232	Approved For Release	4/5/2004
AD0853348	78-03109A	60	1	7	136	Consolidated Translation Survey Through 30 April 1969	4/30/1969	262	Approved For Release	3/25/2004
AD0856606	78-03109A	60	1	8	137	Consolidated Translation Survey Through 31 May 1969	5/31/1969	306	Approved For Release	3/25/2004
AD0857706	78-03109A	63	1	1	138	Consolidated Translation Survey Through 30 June 1969	8/22/1969	413	Approved For Release	3/25/2004
AD0858054	78-03109A	63	1	2	139	Consolidated Translation Survey Through 31 July 1969	9/3/1969	185	Approved For Release	3/25/2004
AD0860022	78-03109A	63	1	3	140	Consolidated Translation Survey Through 31 August 1969	10/3/1969	315	Approved For Release	3/25/2004
AD0860905	78-03109A	63	1	4	141	Consolidated Translation Survey Through 30 September 1969	9/30/1969	285	Approved For Release	3/25/2004
AD0861886	78-03109A	63	1	5	142	Consolidated Translation Survey Through 31 October 1969	10/31/1969	269	Approved For Release	3/25/2004
AD0863371	78-03109A	63	1	6	143	Consolidated Translation Survey Through 30 November 1969	11/30/1969	224	Approved For Release	3/25/2004
AD0864516	78-03109A	63	1	7	144	Consolidated Translation Survey Through 31 December 1969	12/31/1969	177	Approved For Release	3/25/2004